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A Study of Delaware Indian Medicine Practice and Folk Beliefs

GLADYS TANTAQUIDGEON

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FOREWORD

THE PRESENT PAPER represents an addition to the series of studies projected by the Pennsylvania Historical Commission on the life of the Indian peoples once resident within the State. This phase of the research program was planned some years ago by the Department of Anthropology, University of Pennsylvania, and carried out, in part, with the aid of funds supplied by the Commission.

The author of the study deserves a special recognition through qualities she possesses by nature and birth for the task undertaken. Born and reared in the environment of a Mohegan Indian home in Connecticut, she had the advantage of association in childhood with her grandmother and other old women versed in tribal traditions of plant and herbal medicines. Without having had the privilege of a technical training in botanic taxonomy, Miss Tantaquidgeon thus acquired a knowledge of identification of growing plants and their curative qualities and folklore. Her contribution is one that presents the latter rather than the former aspect. With this background of information on the plant lore and medicines of the Mohegan of southern New England, the author was well fitted for the work of studying the Pennsylvania-New Jersey area, and the curing practices of the Delaware. The flora and folklore of both areas and groups are not those of distinct types.

Accordingly, when in 1928 Wi·tapanóxwe (James C. Webber), whose medicine practice is the basis of this study, appeared in Philadelphia and became the object of investigation at the Department of Anthropology, University of Pennsylvania, the project was conceived and developed, leading to the collection of the present material. Miss Tantaquidgeon's training in comparative ethnology and lifelong interest in Algonkian nature-curing, placed her in a position to seize the opportunity. In the ensuing three years she worked at the recording of Wi·tapanóxwe's knowledge and theories as occasion offered.

The essay presented has limits in scope, some of which will appear more obvious to ethnologists than to others. It is not a study of a national stereotype medicine practice of the people we choose to designate as the Delaware Nation, but rather a sounding and analysis of information possessed by one typical practitioner in the healing profession. Individualism is indeed a trait of Pennsylvania Algonkian native culture in science as well as in character, even though the Delaware Indians are appreciably more institutionalized than the Algonkians formerly lying north of them. It may be expected that any Delaware phase of native "science" will show affinities with Iroquoian phases

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when more material is at hand from both groups to merit conclusion. The accompanying study is therefore little more than a beginning in the line of investigation which presents prospects of promise.

It would not be judicious to avoid mention of pharmacological values which may lurk beneath the surface of the material recorded. The findings of native American herbalists through the processes of trial and error may still reveal evidences of understanding of the nature of ills and their cures which are old to mankind but new to laboratory science. Of such possibilities we are coming to know more and more as exploration proceeds and data accumulates. Psychotherapy plays its part. Plant chemistry plays its role, even though in many cases, the agencies may be in their effects negative or neutral to a considerable degree and positive in only a few. While no comprehensive study has as yet been produced in the general field of curative science in North America, it is appropriate that the Commission provides in the accompanying paper a step in the building up of material to this end from the Indians of Pennsylvania whose cultural properties must be sought out and published before the opportunity is lost forever.

The task of final preparation of the manuscript for publication was carried on by C. E. Schaeffer, Assistant State Anthropologist.

DONALD A. CADZOW,
State Anthropologist,
Pennsylvania Historical Commission.

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INTRODUCTION

IT WAS my privilege and pleasure in the spring of 1930 to record the following data on native medical practices and folk beliefs as dictated by Wi·tapanóxwe, "Walks With Daylight," a Delaware Indian of Dewey, Oklahoma. Wi·tapanóxwe was retained as an informant for some months in Philadelphia with the aid of funds provided, in part, by the Pennsylvania Historical Commission. Some interesting facts concerning his life, as well as historical data pertaining to the location, migrations, and present status of the Delaware Indians were presented in a preceding volume (Speck, 1931) of this series. It seems unnecessary, therefore, for me to duplicate such information in the present monograph.

The material presented herein is offered not as a complete and exhaustive study of the curing practices and plant lore of the Delaware Indians but as the theories, practices, and beliefs of one practitioner—information for the most part to be regarded as personal property bequeathed to the informant by certain members of his family or revealed to him in dreams. There are, however, incorporated in these notes descriptions of certain observances of a more general nature which represent the common property of the tribe.

To much that has been written giving actual data on the pharmacology of various tribes in North America, the collection of Delaware material presented here will prove a helpful addition. Among the leading studies in this field, mention should be given to that of Robbins, Harrington, and Freire-Marreco (1916) on the Tewa, and various others by Mooney (1892), Swanton (1928a, 1928c), Speck (1937b) and Olbrechts (Cherokee MS., 1929) for the Southeast. For the Algonkian-speaking peoples of various tribal and cultural types the quantity of published material is also considerable, permitting ere long some attempt at a comparative summary. In this connection similar data contained in the Menomini studies of Smith (1923), and Bloomfield (1928); the Ojibwa researches of Hoffman (1893), and Densmore (1928); Gilmore's material (1919) from the Misouri River region, not to mention information published by Speck (1907, 1909, 1911, 1915, 1917), all offer much that is suggestive of the historical background from which such practices and beliefs may be supposed to have developed.

In connection with such studies I have in mind also the collections of unpublished herbal and charm cures obtained from various remnants of Algonkian peoples on the Atlantic seaboard by Dr. Speck (Powhatan MS.), Dr. Hallowell (St. Francis Abenaki MS.), and myself (1928; Gayhead and Mashpee Indian MS.). The material from these various

groups although possessing its own ethnic individuality, still overlaps in certain respects. And where the practices and beliefs of many tribes reveal similarity to the folk remedies of Europeans in the New World, the problem of interpretation of properties is made extremely complicated. Realizing that many of the plants and weeds are migrants from Europe to the New World, we shall have to proceed with caution in view of the fact that the Indians had an ample native pharmacology of their own before the period of conquest, and that an experimental spirit was always and everywhere active in revealing new cures among the invading plant hosts. It will, therefore, not be an easy task to distinguish between what is Indian and what is European, until we can assign the concepts and practices to one or the other.

No one, I believe, would deny that there has been much borrowing, as it is called, on the part of the Colonial whites from the Indians as a glance at the voluminous contents of the United States Dispensary (1926) will reveal. In the north this process was initiated by the French who accompanied Cartier (1906, pp. 73, 77) and who would have perished from scurvy, had it not been for the therapeutic knowledge of those Algonquin or Montagnais who supplied them with an effective medicine concocted of white cedar bark. Subsequent to this reference in the early documents many others are encountered indicating a deep-rooted system of primitive medicine which was, as it should be, partly pharmacological and partly psychological.

The Delaware system of health protection and disease curing seems to be a blend of what students of comparative medicine have agreed in calling primitive religion and science. In Delaware the sophistry and the performances of healing are religious while the knowledge applied in these processes is scientific. And yet where the action of the herbs, if not other substances, is mechanical or chemical, there is always the dependence upon the spiritual power of the healer with the deep emotional attributes from which the Delaware mind is never free when operating in these channels of thought. There has been, however, a certain element of hard-headed and non-magical experimentation blended together in the development of the herbal cures, at least from the point of view of native method. For the observation of repeated success with some remedies and failure with others has not escaped the attention of the native doctor. Conversations with Wi·tapanóxwe and the herbalists of other tribes have made me aware frequently that selective judgment was combined with past experience in the profession. To deny this would be to discount the mental stature of these men of thought and study to a degree that would bring a smile to the person who has had intimate associations with the native doctors among any of the eastern tribes. Like students of other professions they comprehend the unlimited bounds of knowledge and are ever seeking for additions to both pharmacopeia and technical or magical theory. And the test of efficacy is present in their disciplines even though the test is

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judged by the results of treatment rather than by the science of composition. I might compare it, in some respects, to the tenets of Christian Science without, I hope, doing too much injustice to the basis of this much favored school of reasoning. The Delaware would offer an instance of the powerful influence of religious beliefs upon professional technique, cited by Kirkpatrick (1929, p. 249) and elaborated by Boas (1929), Goldenweiser (1922) and Lowie (1924b) among American students of the subject. Here, however, lies an extended field for investigation which in no manner depends for its development upon Delaware data but in which, I hope, this material will find a place as illustrative of the status of magical science and religion among one of the eastern Algonkian tribes.

That the Delaware of today are not so different from their forebears of two centuries ago as regards ability to treat cases that baffle their rivals of the European profession, is shown by a statement in 1698 of Gabriel Thomas (1912, pp. 323, 340) who said, "The Indians are able doctors and surgeons as any in Europe, performing celebrated cures therewith." From the account written by Heckewelder (1876, p. 229) we have the following testimony. "I, myself, have been benefited and cured by taking their emetics and medicines in fevers, and by being sweated after their manner while laboring under a stubborn rheumatism. I have also known many, both whites and Indians, who have with the same success resorted to the Indian physicians, while laboring under diseases .. . I firmly believe that there is no wound, unless it should be absolutely mortal, or beyond the skill of our own good practitioners, which an Indian surgeon (I mean the best of them) will not succeed in healing." Zeisberger also refers to their ability to treat successfully different maladies, especially diseases peculiar to women. As for the present my informant lays claim to the curing of thirty-two persons during his sojourn in Philadelphia, for which he received no more regular compensation than voluntary gifts from persons of the underprivileged classes.

In assembling the botanic material presented here, specimens of plants were gathered in the wider Philadelphia area in company with my informant who explained at length their medicinal properties and uses. This collection was later supplemented by a few plants sent me by Witapanóxwe from his home in Oklahoma. From time to time such specimens were submitted to Dr. John M. Fogg, Department of Botany, University of Pennsylvania, who very kindly checked their scientific identity. At the conclusion of the investigation a complete list of plant specimens was sent to M. R. Gilmore, University of Michigan, for comment of an ethno-botanical nature.

In the text, bibliographic citations are indicated by the author's name and the date of publication, to permit ready reference to the bibliography.

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DELAWARE MEDICAL BELIEFS AND PRACTICES

Theories on the Causes of Disease.

THE DELAWARE, like so many preliterate peoples, share concepts of a similar character concerning the causes of disease (Clements, 1932). Certain maladies are attributed to the presence of some evil spirit in the body, which in turn is believed to be the work of a sorcerer; others are thought due to the patients' iniquities while a few result from an encounter with an apparition. Failure to obey the laws of nature is the reason most frequently cited by Wi·tapanóxwe for the increase of disease among the Delaware. He said, in part, "In ancient times there was but little sickness among the Indians. The Delaware were greatly blessed because we always kept up our ceremonies and observed the rules of right living.[1] The Indian was healthy because he ate only clean, pure food and lived close to nature. Then came the new people with their strange ways and food, and dreadful diseases."

Paraphrasing the statements of the informant, it is implied that with the onset and steady progress of Europeanization, the Indian was obliged to relinquish many of the ways of his accustomed mode of life. He was forced to seek new territories in order to escape the alien influences that were being forced upon him. Like the wild game, the Delaware fled to more remote regions because their former environment had become so thoroughly contaminated. At this time, it is said, the dwarfs and other non-human folk had safety and seclusion in the rocky cliffs. Certain plants no longer reproduced and grew. Those Indians who clung tenaciously to the teachings of their elders were greatly blessed by the Creator who guided them in visions as of old. From the conservative viewpoint of Wi·tapanóxwe, individuals of a weaker "intellect," were unable to cope with such adverse conditions and were swept away by the devastating effects of acculturation.

[1] Reference may be made to a recent paper of A. I. Hallowell (1939) in which he has shown that "sin" is considered a potent causation of disease among the Saulteaux Indians of the Lake Winnipeg region—Editor.

753 The following examples are typical of the ideas which the present-day Oklahoma Delaware express in their rationalization of the causes of various maladies and physical deformities. Rheumatism, which the Delaware call by a term meaning "old people's disease," is attributed to unclean habits of living during youth. Scrofula is described by the Delaware phrase meaning "matter around the neck." If a person indulges in profanity, he may develop this condition.

It is said that congenital malformation rarely occurs among the Indians. Such physical abnormalities are attributed to the power of malevolent spirits which afflicted the child because of his parents' failure to fulfill tribal obligations by keeping up certain ceremonies bequeathed to them. Such a physical handicap, however, did not keep an individual [826] from leading a useful life, for he was otherwise blessed. The informant added, "Sometimes the weakest person is chosen by the Creator to be powerful in mind. He does that as a matter of pity."[1]

763 776 Paralysis is said to be the result of an encounter with an apparition.[2] If a person sees a ghost-like form approaching, he should step aside to avoid being stricken with paralysis. According to Witapanóxwe, "an apparition in passing by is felt as a slight wind. Sometimes what appears to be a cloud is seen floating along the road and if allowed to touch a person, will cause a stroke." Occasionally a fire is observed to start at the bottom of a tree, blaze up to the top, and then disappear. The informant warned against attempting to strike at such a flame inasmuch as it would result in fatal sickness to the person or to a member of his family.

Witapanóxwe relates the following incident of a personal encounter with an apparition. "We were just young boys then, my brother and I, and we were riding home one afternoon just before sundown. As we rode along I noticed something in the middle of the road, and it seemed to be coming toward us. It had the appearance of a large animal but I could not see its form distinctly. Naturally, I was a little bewild-

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[1] Delaware mythology reiterates the theme of the weakling child vanquishing his powerful opponents through the weapon of shrewd wits over brute strength

[2] Zeisberger (no date, p. 131) says in regard to apparitions: "Wandering spirits and ghosts they claim sometimes throw something into a public path and whoever goes over it is bewitched and becomes lame or ill. They even pretend to know where such a thing happened, learning it from the doctors who are thought to be able to effect a cure."

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ered but I did not tell my brother what I saw. It seemed to come nearer and nearer to us but as we drew close, the thing disappeared suddenly into the woods. I asked my brother if he had seen the strange object but he replied that he had not. When we reached home I told my mother what I had seen and she warned us never to follow a ghost like that as it would lead us astray and finally to a pile of bones."

It may be of interest to note here that at times several people might see the same ghost and "feel" it pass by. Such an experience is always regarded as a warning, foretelling illness, death, or some sudden event. Children are cautioned against answering the call of an unseen person as it might prove to be a "ghost-whoop." Should a child answer such a call, his jaw would become dislocated or even his entire body paralyzed. Once a hunter answered such a "ghost-whoop" and upon trying to locate it, ran into a stack of bones.*

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The cause of insanity is attributed to the failure of a family to perform certain inherited ceremonials. Failure to continue such prescribed rites is punished by misfortune of some kind. Certain individuals are capable of exorcising people afflicted with this malady, the Indian name for which is translated as "lacking good sense." In one incident a young man believed that he saw a "mask" everywhere he went. His relatives finally resorted to a sweat doctor who entered the sweat lodge to ascertain the cause of the illness. After the ritual the doctor announced that it was due to their failure to perform regularly a ceremony which had come down in the family. In order to avert further trouble and to rid the young man of the disease, the doctor advised that the neglected feast and ceremony be performed, after which the patient became normal once more. Could anything be more in conformity with modern psycopathic practice than the preceding case! Other native terms which apply to people similarly affected are translated as "silly" or "half-witted."

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I might also note that having in mind the prevalence of the theory that animals are the main causes of disease among the Cherokee (Mooney, 1892, p. 322), and Muskhogean peoples of the Southeast, I failed to find any evidence whatever in the mind of my informant of a similar belief among the Delaware.

* Archaeologists, take note!—Editor.

Importance of the Dream Vision in Delaware Curing

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The dream vision[1] is of paramount importance in the life of the Delaware. This supernatural visitation is experienced during childhood, or less frequently, at the age of maturity. More commonly it occurs during the fast-vigil of a youth at puberty, alone in the forests searching for a spirit guardian (Benedict, 1923). It is usually to such individuals, considered by the Spirit-forces to be spiritually and morally pure, that this great blessing is bestowed. The gift is not restricted to the male but supernatural power granted to a girl is usually of lesser force. It is said, however, that women, through spiritual guidance, are more adept as a rule in the art of preparing and administering herb medicines than men. Occasionally a man has been blessed with a vision that gives him power to become an herb doctor. Wi·tapənóxwe became proficient in that field as will become evident in a subsequent narrative.

Not always is the revelation experienced in a dream. The neophyte may be walking alone in the woods, or even in a situation of apparent danger when the presence of the spiritual agent is made known to him. A voice from a rock, a bird, an animal or even the sky is recognized, as the medium through which the coveted power is conveyed to the fortunate one. Occasionally a song is granted to the novice during the visitation. This bequest is regarded as personal property to be used exclusively by the owner during participation in the ceremonies of the Big House or in practicing healing with herbs or in the sweat-lodge.

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To receive such a revelation from the Creator means much to a Delaware. It affords the assurance of spiritual guidance in all things, thus giving him confidence to go afield and to face whatever adversities may come into his life without fear.

To those whom the Creator has entrusted with this great gift comes the full realization of the necessity of fulfilling certain obligations. The dream-vision is not divulged until a man reaches maturity and comes to feel that he is capable of appearing before his tribesmen as one who has had sufficient experience in life to avoid incurring criticism

[1] Zeisberger "To the dreams they appeal for in them they have much faith." See also: *Ibid*, p. 25, Harrington (1921, p. 61). "The most vital and intimate phase of Lenape religion is the belief in dreams and visions, and in the existence of personal guardian spirits or supernatural helpers—concepts of wide distribution among the North American tribes, but rarely so vivid or well-developed as we find them here."

in carrying out his ceremonial duties. The process of preparation is long and arduous, a period during which the novice must observe carefully the ways of his elders. The youth is instructed to be prayerful and humble in spirit since it is believed that only through prayer and faith are great things accomplished. Humility is the keynote of Delaware behavior even among those men and women who have attained the experience of advanced age. If one has lived a clean, pure life and has been faithful to the doctrines of his tribal religion, he shall indeed be called great. Not of the pompous, boastful, type but a truly righteous man with full realization of the joys and blessings which come to those who are ever mindful of the Creator.

Some of the more spiritually inclined are known to have had more than one vision, as in the case of Wi·tapanóxwe whose first revelation came in his youth, the second later in life. If one has had several visions he usually is guided by the first but in any event he is free to choose according to his spiritual needs. After such a decision is made, however, the individual continues to adhere to the guardian selected throughout the remainder of his life.

Having lived according to the precepts of his native faith and achieved the age of mature experience, the informant was not averse to making known the spiritual power revealed to him during two dream visions. His recitation and song have been fully given in text in a preceding number of this series (Speck, 1931, pp. 128, 168). Now he is ready to take his place in the Big House Ceremonies and in the sweat lodge but prior to the recording of his vision, he still felt inexperienced and unworthy of appearing before his kinsmen in a ceremonial role.

The following is presented in the words of Wi·tapanóxwe and is self explanatory:

> It was while attending school at Chilocco, Oklahoma, I was taken sick with the black measles. The authorities were alarmed, thinking that it might be scarlet fever and more than a hundred of the pupils were removed to the local hospital and placed under quarantine. It was during that time that I had my trials and tribulations. The summer before, Mr. Wright, a noted evangelist of part Choctaw descent, had visited the school and held revivals. So many were converted that I too thought that I was fully converted and was persuaded to say that I had accepted Jesus Christ for my personal Savior. But now came the real test. I was one of thirty patients in a first floor ward and read the Scriptures constantly.

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159 The attending nurse had an aged father who often told us that he had served in the Civil War. During that time he had the measles but he did not even go to bed. He was assigned to look after the personal needs of the patients in my ward and he soon tired of his duties. He would try to force us out of bed and called us all kinds of ugly names. He was more profane than any white man I had ever seen. We were not allowed to drink cold water to cool the high fever of the dreadful disease but were compelled to drink a weak solution of cayenne-pepper tea to quench our thirst. Of course that alone was bad enough but the disagreeable old veteran made matters worse.

His actions so disgusted me that I decided since I was feeling on the mend, to get up and put on my clothes. Unbeknown to either the doctor or the nurse, I got up and attended to the patients, giving them medicine as I had done many times before. It was in the month of February, the sun came out warm, but there was still a little scattering of snow on the prairie. Having finished my tasks I went out on the south side of the building and stood in the sunshine for a few minutes. Although I was wearing an overcoat, cap, and overshoes, the exposure, which I thought was harmless, nearly caused my death, leaving me weak for many years. Fortunately I pulled through—weak but determined to live.

This is the first time I have related my experience with the so-called white man's religion. That evening before five o'clock I was taken sick and went back to bed again. The doctor and nurse did not know that I had been up but the sudden rise in my temperature alarmed them greatly. I was delirious the greater part of the time for more than seven days. So they decided to notify my parents who lived some eighty miles away. It was at this time a vision came to me and accompanied me around the world. At times it seemed as though we were not on earth. This man spoke the Delaware language and he showed me many of the Indian ceremonies, some of which I had never seen or heard before. He showed me men and women who had departed this life many years before, and told me their names.

When at times I would awake from what seemed only a short nap, I would find myself talking to my mother who was at my bedside constantly. To my sorrow I found out that many of my comrades were worse off than I. It was here that I fully realized that the teachings of my mother had been so deeply impressed on my mind. This experience turned me back to the Delaware Big House.

So it happened that years later, after worrying about my careless life at home in Muskogee, these same strange visions came and spoke to me from mid-sky and gave me a song. They seemed to be four in number and were not earthly persons, but belonged to the sky.

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It was then they came to tell me what my mission on earth was to be. Since everyone has a purpose in life, mine was to heal the sick. Whenever I dreamed a secret I told my mother and she told me to keep this to myself until I became older. Now as I get older, I feel that I shall be better known in years to come. I am confident that my dream-vision power will bring me success throughout life since the Creator does not abandon his children to whom he had entrusted such gifts. By this I have learned to work out my own salvation, knowing that the Indian wholly depends upon the talent allotted to him by the Creator. These experiences fully qualify me to lead in the Big House if I choose to do so. My brothers do not know this but they suspect that I have a vision to relate. Some day they may have the pleasure of hearing it when the opportunity offers.

Delaware Practitioners

Delaware herbalists are of two classes:[6] (1) "one who knows [medicine] well" and (2) "one who uses medicine for magic purposes."[7] It is believed that to the former is entrusted the knowledge of the healing properties of plants as well as the methods of preparing and administering them as medicine. These practitioners are usually women

[6] Heckewelder (1876, p. 228) refers to the herbalists as "physicians and surgeons" and says in part: "By these names I wish to distinguish the good and honest practitioners who are in the habit of curing and healing diseases and wounds, by the simple application of natural remedies, without any mixture of superstition in the manner of preparing them." Zeisberger (*op. cit.* p. 24) does not classify the Indian doctors but writes, "There are Indians who have considerable knowledge of the virtue of roots and herbs, learned from their fathers, and who bring about relief."

[7] *Ibid*, p. 231. Heckewelder, in discussing this type has chosen to call them "doctors or juggler," for which he gives the following reasons: "These men are physicians, like the others of whom I have spoken, and like them are acquainted with the properties and virtues of plants, barks, roots and other remedies. They differ from them only by their pretensions of a superior knowledge. As the Indians in general believe in witchcraft, and ascribe to the arts of sorcerers many of the disorders with which they are afflicted in the regular course of nature, this class of men has risen up among them who pretend to be skilled in a certain occult science, by means of which they are able not only to cure natural diseases, but to counteract or destroy the enchantments of wizards or witches, and expel evil spirits."

759 but occasionally a man is blessed with a vision [8] in which the Creator bestows upon him this great gift, and like Wi·tapanóxwe, he becomes an herbalist. In addition to the knowledge of healing acquired through his guardian Spirit,[9] the informant has also followed carefully the teachings of his mother who was recognized by Delaware of the older generation as one adept in the art of compounding and administering herbal remedies.

[791] The second class is composed of individuals whose supernatural power enables them to perform acts such as reuniting an estranged couple or dispelling a supposedly evil charm. Certain rare plants are employed by them in practices resorted to only in emergencies.

It must be emphasized here that, according to Delaware belief, the practitioners are the medium through whom the Creator sends his healing power to alleviate distress caused by the physical and mental ills which attack the frail bodies of mankind.

Absolute faith in the unfailing power and benevolence of the Creator is the force which inspires the Delaware who has been blessed with a medicine vision and he is ever appealing in prayer to that higher Spiritual Force for aid in his professional undertakings.

[824 825] Believing that plants and animals in general are closely related to mankind [10] and that the Creator has endowed them individually with spiritual natures equally as sensitive as our own, the Delaware herbalist is always careful to perform the formal propitiatory rites before gathering a plant or removing part of an animal for use in making medicine.

759 824 782 278 If a practitioner is called upon to treat a person during the growing season in spring or summer, his first move, after the formal acceptance of the case and receipt of a gift of tobacco, is to go out and seek a plant of the desired species to be used in making medicine for the treatment of the particular ailment. After coming upon the first plant

[8] Zeisberger *(op. cit.* p. 25) "Fancied skill and imagined ability to heal the sick are traced to dreams which these individuals may have had in their youth. To the dreams they appeal, for in them they have much faith." See also Speck, 1931, p. 51; Harrington, 1921, p. 61; and Benedict, 1923.

[9] Harrington (1921, p. 80) quoting from the notes of R. C. Adams, "It is believed by the Delaware that every one has a guardian spirit which comes in the form of some bird, animal, or other thing, at times in dreams and tells them what to do and what will happen. The guardian spirit is sent from the Great spirit."

[10] Speck (1931, pp. 28, 29) discusses the principle of consanguinity as applied to deities and nature-forces.

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of the variety required, he does not gather it[11] but performs a ritual to appease the Spirit of the plant. A small hole is dug towards the east near its base and a small quantity of native tobacco[12] placed within. The herbalist then lights his pipe and smokes, meanwhile making the following appeal to the Creator and to the Spiritual forces which govern vegetation. The songs and properties are regarded as personal property and the accompanying medicine-gathering prayer of Witapanoxwe is regarded as typical.

MEDICINE GATHERING PRAYER (free translation)

"Grandfather, I come now for medical treatment. Your grandson (name of suppliant) needs your aid. He is giving you a smoke-offering here of tobacco. He implores you that he will get well because he, your child, is pitiful. And I myself earnestly pray that you take pity on him the sick one, I wish for him to get well forever of that which is causing pain in his body. For with you alone rests the spiritual power sufficient to bless anyone with, and hear now him our Grandfather tobacco, I beg of him that he will help me when we plead with earnest heart that you will take pity on your grandchild and that you will accept this appeal. I am thankful, Grandfather, also Creator, that you grant our appeal this day for all that we ask.[13] I am thankful, Grandfather. That is enough for this time."

Upon the conclusion of this propitiatory rite the medicine person searches out another plant of the same species, which if clean and healthy-looking, is then gathered. It is now ready to be treated in accordance with the rules governing the preparation of roots and herbs in the accompanying pharmacopeia. If the root of a plant is to be used in making medicine, it is gathered at the season when the vital properties are present; similarly the stalk or leaves each are gathered at the proper seasons.

[11] Harrington (1921, p. 26) in reference to the manitowuck to whom the Indians pray, says, "These are mentioned in the ritual of the Annual Ceremony and the people often pray to them when gathering herbs or preparing medicines, at the same time offering tobacco." He also says (p. 51) that, ". . . Some seem to have prayed to the four directions, other to the presiding genius of the species of the plants they sought or to the spirit of the individual plant itself."

[12] "Real tobacco" (Nicotiana rustica), to which a Delaware term meaning, "our grandfather," is also given.

[13] The proper phrase in full is, "give us what we ask for." It is abbreviated here to suit the formula.

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The herbalist, before using herbs previously gathered and dried, performs the same rite of smoking and prayer. If the plants are being gathered for future rather than for immediate use, an appeal is made to the Creator to bless the plants and render the remedies effective in curing the future ills of his grandchildren.

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The custom of offering prayers before the gathering and preparation of medicinal plants is not observed exclusively by the medicine men but is known to every Delaware. However, it was remarked that many fail to adhere to the ancient rite.

In observing Witapanóxwe I was charmed by the delicate and reverential manner in which he handled the plants secured and arranged for this study. At this time he emphasized the idea of conservation, stating that one should gather only what was needed, and that vegetation in general should not be subjected to ruthless treatment.

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Purity means much to the conservative Delaware and so the pure plants, as taken from Mother Earth, must not be defiled. It is therefore important that in order to avoid contamination no metal should come in contact with plants that are to be used in the treatment of disease. Roots and plants are allowed to dry in the sun, its rays lending them added potency. In this connection it is considered highly beneficial for a convalescing person to lie directly in the sun, so that its strengthenings qualities may be transferred to him. After the process of curing, roots and leaves are prepared by crushing them in a non-metallic receptacle, a stone basin or a wooden mortar being used for the purpose.

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The herbalist smokes and offers a prayer while the medicine is being prepared and is always careful to stir it in the same direction—from left to right. One should never blow upon the concoction to cool it; to do so would represent an affront to the spirit of the plant.

[823]

The most able practioner will not treat himself when ill, nor a sick member of his family, but always calls upon the service of another.[14]

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If an herbalist or sweat doctor, after diagnosing a case, feels that it is beyond his power to effect a cure, he will send the patient to another more capable of treating him successfully. Sometimes a sick person

[14] Zeisberger (*op. cit.* p. 25) "If one should know enough to help himself, being able to prepare *Beson*, and became ill, he will rarely treat himself, having the superstitious belief that what is prepared by himself will be of no benefit. Using what has been prepared by another, he believes, will bring relief."

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will visit several doctors in succession before finding one who has knowledge of preparing a remedy for his particular illness.[11]

The person, either male or female, known by the term meaning "one who uses medicine for magic purposes," apparently had a larger number of patients in early times than the type of practitioner previously described. Zeisberger (*op. cit.*, p. 25), and Heckewelder (*op. cit.*, p. 231), from whom this impression is obtained, give rather detailed accounts of their seemingly weird practices. Both writers attribute the popularity of this group of healers to their feigned ability of dispelling the charms of evil sorcerers whom the Indians constantly feared. Witapanóxwe clarifies the distorted impressions implicit in these accounts by his interpretation of the procedure employed in treatment. The herbalist was called upon to aid individuals who have experienced difficulty in their marital relations or who have tried unsuccessfully to win the favor of a lover. Others came to him to be freed from malevolent influences. His power was not, however, limited to the control of human beings but extended to animals as well. Such a person was truly a "powerful man." This great power was entrusted with the admonition that it must never be used for malevolent purposes. Like the group of practitioners previously mentioned, the code of such people was based upon profound faith in the Creator, strict observance of the laws of nature and a deep regard for the traditions of their tribe.

The plants employed by such an herbalist were of the rarest and most powerful kind. Their habitat and medicinal properties were not known to ordinary individuals. Such plants were unable to withstand the progress of civilization because, as my informant put it, "they could not live in unclean surroundings." The preparation made from these rare flora was known to the Delaware as "medicine for magic use," or "love medicine" (Zeisberger, *op. cit.*, p. 83). It was regarded as a gift, not to be used upon ordinary occasions but only in cases of emergency.

[11] Zeisberger (*ibid.*, p. 55) states that "Concerning plants and roots of medicinal value, it would be possible, if one were to devote himself to inquiry, to secure a great deal of information from the Indians for what one does not know another does, each man and woman having some knowledge in this direction, some more, some less. Hence, the custom that a patient who has consulted an Indian and secures a medicine from him without, however, being benefited, will go immediately to another; if no relief is obtained through his advice, the patient goes to a third, a fourth, until he finds one whose medicine helps."

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Love Charms

332 Certain peoples, however, learned long ago to employ medicine of this nature for evil purposes, frequently to gain influence over women. In such instances it was called "love medicine for gaining influence," [16] or "witchcraft." [17] The following test and prayer were given by Wi·tapanóxwe as characteristic examples of the correct procedure to bring about the reconciliation of an estranged marital couple.

At the present time the "love-doctor," usually a woman, employs two varieties of roots for the magical rite. One is known by the term "flower hangs down";[18] the other merely as "pull-up." A portion of the first variety is broken into three small pieces which are laid upon the outstretched palm of the practitioner's hand. These represent the three individuals involved in the ordinary triangular affair, the petitioner in the center, the spouse or sweetheart to the right, and the third party to the left. The other palm of the practitioner is then rubbed lightly over the roots and their movements closely observed. The side towards which the middle piece is seen to move, indicates the person with whom the petitioner is in love. The test may not be made more than once a day, "one test a day," but successive attempts over three or four days are permissible. The "love-doctor," after offering some of the tobacco given by the petitioner, attempts through her supernatural power, aided by prayer, to bring about the reconciliation of husband and wife, or true lovers. She can however be employed to separate a married couple, or two lovers, a practice designed by the informant as "bad." The practice is only employed in the case of serious misunderstanding between husband and wife, one of whom strives in this way to effect a reconciliation. The other is not informed of the trial.

Prayer Used in Preparing the Love Charm (free translation)

933 539 "Grandmother, I beg of you that you will help your grandchildren to reconsider each other. They are in trouble so I sacrifice to you this tobacco, our Grandfather, in order that you will help that man, Big

[16] Zeisberger (p. 126) refers to the introduction of a poison (witchcraft) called "*mattaparrigan*" by the Nanticoke. See witchcraft, p. 38ff.

[17] According to Wi·tapanóxwe this term applies to the act of attempting to gain influence for legal or illegal purposes by means of the medicine which is said to have magic qualities. The shaman who practices his profession for evil is also referred to as o·: "who practices for evil."

[18] *Podophyllum peltatum*, May apple

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Bear and that woman, Small Person, to forget their troubles.[19] Because, Grandmother, it has been many years that they have been together. Again, Grandmother, I implore you because it is right that they should love each other henceforth. If you accept my plea, in two days from this time the woman will go back."

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The second variety of magical root, termed "pull up," is employed in the following manner. The informant's maternal grandfather transferred to him the secret of such a medicine gift in order to control human beings or animals. Although the root is intended primarily for use in hunting, it could also be employed to coerce or in general, influence people favorably. I was unable to secure a specimen of this "rare" plant for scientific identification.[20] Wi·tapanóxwe describes the plant root as having "five prongs." After securing several of the plants, the roots are prepared by cleansing them thoroughly in running water, to the accompaniment of songs and prayers. Three branches of the plant root are then broken off and another, taken from the root of a plant of the same species, attached to the remaining two, to make three. In this connection it may be noted that the emphasis upon the number three in this and the previously decribed love charm represents a symbolism for which the informant could offer no explanation.

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In use, a small quantity of the prepared root is chewed three times a day. The juice resulting from the first mastication is rubbed on the hair, that from the second and third is swallowed. Such a procedure will bring about the desired result in a short time. To lure game animals some of the root is chewed while hunting. Wi·tapanóxwe related an incident of holding some of these roots in his hand while singing his medicine song, and thus luring a squirrel very close to him. The root is so powerful that if an excessive amount of juice is swallowed, the person's mind will become affected.

Food Taboos

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After he has diagnosed the case, the practitioner prescribes a curative diet[21] for the patient, the food restrictions being determined by the

[19] "Being in trouble."

[20] This is probably due to the supposed magical properties attributed to this plant, making it dangerous, according to Delaware belief, for persons other than practitioners to handle it. This applies to all other plants used for magical purposes.

[21] Barber (1856, p. 538) quotes the following from William Penn's letters: ". . . if they eat flesh it must be from the female of any creature." Also see Zeisberger, *op. cit.* p. 24.

nature of the disease. The flesh of animals and fowl is excluded from the diet and in the case of fever, red or fox squirrel flesh is not eaten. This food taboo is known to the Delaware by a native word meaning "makes you sick." Corn hominy, however, is administered in most cases, as it is considered to be a nourishing food.

In the case of childbirth, salt is not eaten for ten days. Onions are given the mother to produce milk, but care must be taken not to use a quantity such as to cause nausea for the child and mother.

During the catamenial period a woman is not allowed to prepared food nor taken an active part in domestic affairs.[1] The separate dishes assigned to her at that time, may only be used by her husband. Food cooked by such a woman would produce tuberculosis in others in a short time. A term translated as "gives dirty food," is applied to such a practice and refers to the resultant poisonous effects. During her periodic isolation a woman herbalist must refrain from preparing remedies or participating in any of the ceremonies.

Divinatory Curing Practices

Certain acts of a divinatory nature are performed upon selection and preparation of plants, roots, and bark employed in making medicine. Only plants that are clean and well developed, with the roots free from knotty growths, are taken. When seeking bark, the medicine gatherer selects a sturdy, well-formed tree for the purpose. The bark growing on the east side of a tree is preferred for its greater strength-giving properties received from the morning sun.

In gathering medicinal supplies, the materials are inspected for a clue as to the course of the treatment. Thus, if roots appear rough and knotty, the patient will be difficult to cure; if clean and well-formed, it will be an easy task to restore his health. Another practice is to place some crushed leaves or roots in running water. If the substance sinks to the bottom of the stream, the patient for whom it is prepared, will die; if it floats, a speedy recovery is assured.

When all other remedies have failed, an emergency medicine is sometimes made from scrapings of deer antler. During its preparation a prayer is offered to the animal from which the antler was obtained. Wittapanixwe related an incident in which a trial was made by means

[1] The puberty ceremony for young girls and the periodic isolation of women is described by Zeisberger, *Ibid.* pp. 75-77.

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of this substance. His niece was preparing it for a small child who was dangerously ill. She dropped a small quantity in a cup of hot water and observing it settle to the bottom, knew that the small patient would not recover. The medicine was administered as a tea, but the child died in a short time."

In the making of an emetic, the necessary water should be dipped from the stream *with* the current;[44] for a cathartic, *against* the current. A similar regulation applies to the gathering of bark; for use as an emetic, the bark is peeled upward; for a cathartic, downward.

Formerly there were among the Delaware, as among other tribes, certain men and women whose supernatural power enabled them to communicate with the dead, to locate lost persons and objects and to foretell coming events. This practice was known as "locating or foretelling," and one who possessed such power was known as a "man who tells of the future." The source of this extraordinary power was attributed to one's guardian spirit or in some instances to the spirits of the dead. Those who were able to communicate with the dead usually performed at night. Such a person was also thought able to cure paralysis.

Some individuals who possessed the power to stay under water for a period of several hours at one time, were frequently called upon to locate a drowned person or a submerged object. One man was known to have found the body of a drowned person after months of futile searching by others. Some years later, the son of this shaman, after becoming converted to Christianity and studying for the ministry, finally persuaded his father to abandon the native faith and join the Christian church. In doing so the old seer, forsaken by his supernatural guardian, forfeited his magical power. Later the old man returned to the Delaware religion, but the power which enabled him to be of service to his tribesmen, was gone forever.

Wi-tapanóxwe's grandfather was one of the last of the Delaware to possess such extraordinary mental and physical powers. He was able to perform the submersion feat and several times located the bodies of persons who had drowned in the rivers of Kansas. On one occasion a

[44] In reference to remedies for fever, Zeisberger observes (*op. cit.*, p. 55) that "when a patient has been given a dose, they are generally able to tell by its workings whether he will recover or die. If he does not retain the medicine it is regarded as a sign that he will hardly recover."

[45] This practice was noted by Heckewelder, *op. cit.*, p. 224.

team of horses which had broken through the ice, were rescued through this same ability, to remain beneath the surface of the water for a considerable period. Power for this ability was given him by a teal duck which appeared to him in a dream. In the informant's words:

> When a boy, my grandfather always went swimming every morning before sun-up, even when there was a thin coating of ice on the river. One time he dreamed of going down to the ice-covered stream very early to bathe as usual. When he jumped into the water the echo could be heard down the river. Then suddenly he heard a voice saying to him, "I am going to make you a strong man. You will be able to go under the water as I do." He did not see anyone around but there close by was a teal. And he could go down under the water and get fish, too.

So close was the connection of divination with the spiritual realm that the Delaware noted carefully the last words of a person near to death. At such a time the dying one is believed to be in close communication with the souls of the departed, who may impart messages of great importance through this medium to the living. One aged woman while on her death-bed spoke as follows:

> My kindred, we have been wonderfully blessed. We have enjoyed the gifts which the Creator bestowed upon us. That is because we have kept our own religion and observed the teachings of our elders in all things. If you continue to do this in the future, you will not be subjected to the evils which increase as civilization increases. Do not give up your own religion.

Another old woman foretold the coming of the railroad twelve years prior to its appearance, while a third foresaw the granting of citizenship to the Indians twenty years before its occurrence.

The Sweating Rite

The importance of the sweat lodge ritual, as carried out by the Delaware for the purpose of spiritual and physical purification, is attested both by early observers,[25] and by more recent students.[26] According to Zeisberger, in his discussion of Delaware customs, the practice was attended by rather elaborate rites and was evidently regarded as one of the major ceremonies. It was performed in honor of fire, being called *machtuzin*, a term meaning "to perspire," according to the same writer's translation. A similar rite is described by Harrington, whose informants named it *muxhat'olzing*. This is recorded as a variant of the Annual Ceremony.

[25] Zeisberger, *op. cit.*, p. 138; Heckewelder, *op. cit.*, p. 225; Loskiel, 1794, pt. 1, pp. 108-9.

[26] Harrington, 1921, 122-126; Speck, 1931, pp. 72-74.

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In examining the various accounts of this rite, both in published and manuscript form and through correspondence and verbal statements, it is evident that what was originally a highly developed ceremony performed in honor of the Creator, to whom appeals were sent through various media (such as fire, tobacco, water, etc.), has been modified to a great degree by the introduction of alien features and the abandonment of certain elements to meet the requirements of individuals. The latter would apply both to the practitioners and to those who sought treatment for physical and mental ills. 757 796

The benefits, according to one early writer (Heckewelder, *op. cit.*, p. 225) which were derived from the sweat lodge ritual, were numerous and varied. He writes: "The sweat oven is the first thing that an Indian has recourse to when he feels indisposed: it is the place to which the wearied traveller, hunter, or warrior looks for relief from the fatigue he has endured, the cold he has caught or the restoration of his lost appetite." Reference to the works of Zeisberger [27] and Loskiel [28] indicate that it was customary for individuals to resort frequently to the public sweat lodges.

Wi·tapanóxwe states that formerly the sweating rite, as a part of the annual Big House Ceremony (Speck, 1931, p. 74), was performed to test the spiritual and physical strength of certain men, usually warriors. A lodge was built within the Big House and the men went in to pray and to recite their visions. Those who could withstand the heat for the longest period, were regarded as possessing the greatest power for war, and for curing. Information (correspondence, November, 1930) of a negative character as to the ceremonial aspects of the rite was obtained from J. A. Parks, of Copan, Oklahoma, who writes, "The sweat lodge was not a ceremony. It was a method of treating the sick with sweat baths and hot breaths of air by the Indian doctors."

This brings us to a consideration of the rite as it is performed by the Delaware sweat doctor today. In the account dictated by Wi·tapanóxwe, there is evidence of the survival of many elements, originally attached to the earlier form but subsequently incorporated into the formal pro- 757

[27] "It is the custom of the Indians when they are tired or caught cold to go into a sweating oven several times a week. For this purpose every town has on its outskirts a sweating oven." (*op. cit.*, p. 26.)

[28] Similarly, this writer (*op. cit.*, p. 661) states in reference to the Delaware that "In every town an oven situated at some distance from the dwelling is built either of sticks or boards covered with sods, or dug in the side of a hill, and heated with some redhot stones."

757 cedure within the lodge for the purpose of diagnosing and treating sickness.

756 The term applied to the sweat house healer is one meaning a "sweat
757 doctor." He always performs within the lodge when asked to examine or treat a patient. It is interesting to note that my informant, Witapanóxwe, and Charley Elkhair, the present head chief of the Oklahoma Delaware, claim the distinction of being the only men among the Oklahoma Delaware who have supernatural sanction to perform in this capacity. The former believes that he is privileged to assume the role which his people consider appropriate only for men whose mind and character have been strengthened by years of experience but that up to the present time (1930) he has not attempted it. The powerful shamans[29] of an earlier period were said to have been able to perform miraculous feats and effect marvelous cures without the aid of the sweat lodge although it was frequently employed in their practices.

787 Both of the above types of medicinemen receive their power from
756 the Creator through dream-visions, the spiritual visitation occurring
759 usually just before sunrise or sunset. The vision is accompanied by a medicine song which becomes the personal property of the healer, to be sung during performances in the sweat lodge. It is said that women rarely became sweat doctors. Witapanóxwe, since his vision and medicine song were received just before sunrise, considers that as the time of day during which he would be most successful in curing activities within the sweat lodge. Those who received their power at sunset accordingly regarded that as the most suitable time for performances.

Contrary to the herbalist's custom of not accepting gifts or payment for his services, the sweat doctor expects payment from those who approach him for consultation and treatment. In former times trader's trinkets, etc., and somewhat later, horses, blankets, and money were given by those requiring his services.

343 The construction and equipment of the sweat lodge are matters of considerable importance in this particular type of curing. It is built of twelve poles which represent the twelve levels of heaven (Speck, 1931, p. 74) and according to native belief, lead to the abode of the [772] Creator. For this purpose saplings chosen for their flexibility, are cut

[29] In Delaware the term used means "powerful man," "man who can heal," and refers to a type of shaman, called *medeu* by the Delaware of an earlier period, especially concerned with curing. Among the Chippewa (Densmore, 1929, pp. 86-97) the *mide* were the leaders of the *mide'wiwin* or Grand Medicine Society. See also Hodge, 1912, p. 523.

into lengths averaging from six to eight feet. The end of each of these poles is pushed into the ground to form a circular outline, five or six feet in diameter, with a somewhat wider space marking the entrance towards the north or south. The opposite ends are then bent over and lashed down to form a dome-shaped structure, over which skins, mats or blankets are laid. The fire, located in the lodge center, is built of twelve logs of hard wood. Neither driftwood nor wood obtained from a tree struck by lightning are suitable for this purpose. The use of the former, known as "gathered together by water," would tend to cause a flood. Fuel taken from a tree struck by lightning, is termed "thunder burned wood"; its use in the sweat lodge, thus angering the Lightning Spirit, would cause a severe storm.

The native doctor may employ any person to assist in building the fire, carrying rocks and water, or arranging mats of Indian hemp and bark for the pallet upon which the patient is laid. The latter is covered with skin robes or blankets so that only his head is exposed. After the fire has burned down sufficiently to form a bed of coals, more logs are added and the rocks, usually limestone, brought in. Twelve stones of medium size are placed in the fire. For handling them, a branch of hickory or any hard wood, about five feet long, is split at one end for use as a fork. After the rocks have become thoroughly heated, water is poured over them to produce steam. The doctor prays and sings for a period of time determined by the nature of the sickness and the strength of the patient. His song at this time is the narration of his dream-vision experience made as an appeal to the Creator and his supernatural guardian. Although the emphasis in this type of treatment is upon mental suggestion, in some instances tea made of herbs is administered by the doctor.

In addition to the lodge, poles, fire logs, and steam rocks[80] grouped in units of twelve to conform with the twelve levels of heaven, symbolical significance is also attached to fire, water, and stone. These are regarded as minor deities, often referred to in terms of human consanguinity (Speck, 1931, p. 32), possessed of great healing

[80] Brinton (1888, p. 37) in writing of the survival of curing rites among the Ontario Delaware, states: "I enquired in particular if there are any remnants of the curious adoration of the twelve sacred stones described by Zeisberger. I found that the custom of the sweat lodge still prevails. The steam is generated by pouring water on hot stones. This is done by the medicine man who is known as *Quechksapiet*. He brings in one stone after another and pours water on it until it ceases "to sing" and invariable he uses precisely twelve stones."

776 power. Besides its specific name, the term, "our Grandfather," is ap-
778 plied ceremonially to fire. Rocks are also known as "our Grandfathers." Water is regarded as a powerful spiritual force and is known as "our Mother."

757 Some cases of illness can be cured in one treatment while in others it is necessary to hold several meetings in the sweat lodge. The latter is known by a term meaning "temporary sweating." New stones are secured for each treatment. It is considered advisable to let one or more days elapse between treatments, as determined by the physical condition of the patient. The latter is occasionally massaged by the doctor, who first warms his hands upon a hot stone before rubbing the affected area. Often it is necessary also for the healer to [755] blow hot or cold air upon the patient. For the first the shaman's breath is warmed by means of a hot drink. In Delaware terminology this is known as "warm breath." In case of fever or exhaustion the "cooling breath" is used. One doctor had so much supernatural power in this respect that his breath would cause a swelling wherever it struck the body. It was therefore necessary for him to exercise great care in this type of treatment to avoid bringing undue discomfort to the patient.

795 Following the ritual performance in one of the Delaware peyote cults, it is customary at the present time for the participants, both men
515 and women, to go into the sweat house (Petrullo, 1934, p. 95). This usually occurs before sunrise. The sweat house for this assemblage accommodates about twenty persons. The equipment is precisely the same as for the performance previously described, but there is no ritual connected with this performance. Men and women enter together and drink hot water to induce perspiration. In case of nausea, they chew "Osage tobacco" (wild sage) and swallow the juice. This plant, according to my informant, has a very strong taste together with astringent qualities. The sweating period is followed by a plunge.[51]

[51] This is comparable to the semi-social aspect of the rite as described by Heckewelder, *op. cit.*, pp. 225-226. "These sweat ovens are generally at some distance from an Indian village where wood and water are always at hand. The best order is preserved at those places. The women have their separate oven in a different direction from that of the men, and are subjected to the same rules. The men generally sweat themselves once and sometimes twice a week; the women have no fixed day for this exercise, nor do they use it as often as the men." He also states: ". . . A crier goes his rounds calling *pimook*, 'go to sweat.' Everyone brings his small kettle which is filled for him with the potion which at the same time serves him as a medicine, promotes profuse perspiration, quenches his thirst."

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The Medicine Bundle

The existence of the medicine bundle complex [33] among the Delaware has apparently escaped the notice of recent investigators in the field of Delaware ethnology. Both Harrington (1921, pp. 36, 42, 49, 65-66) and Speck (1931, p. 42) mention the use of personal and tribal fetishes but omit any reference to the bundle concept, as such. This is doubtless due to the deeply religious convictions of the informants who regard such objects as too sacred to be displayed or discussed in the unclean environment in which they must perforce live. It was not until the conclusion of the work that I learned of my informant's ownership of a medicine bundle. He was reticent about speaking in detail of its contents, but inferred that it was made up of personal charms and medicines.

While the use of the medicine bundle among the Delaware is not accompanied by the highly developed ritualism observed by the Medicine Bundle societies [34] of the central Algonkian tribes and others in adjacent areas, there is a simple code, characteristic of the trend of Delaware religious thought, to which the owners of the bundles adhere.

The Delaware bundle is said to contain sacred articles which are assembled in accordance with injunctions laid down by one's spiritual guardian in a dream vision. In addition to pieces of roots for use in concocting secret formulæ, a bundle usually contains personal tokens such as a bird claw, a feather, a piece of bone or horn, an animal tooth, a magic stone, or emergency gift.[34] One man may have several or all of the articles enumerated while others possess only one. Each case is of course determined by the supernatural experience of the individual. For example, men of the warrior class carry, besides their individual charms, some particular medicine prepared for the exclusive use of warriors.[35] Hunters carry an animal lure also prepared from a formula handed down from older generations, and carefully preserved. The bundles of the herbal practitioners and sweat doctors contain portions of rare roots and plants used in their healing practices. These different

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[33] A term meaning "gathered together," used in speaking of the Medicine Bundle, refers to objects forming a collection intended for magical practices.

[34] This engrossing subject has been dealt with in detail by Skinner, 1913, p. 91; 1920, pp. 168, 266; Hoffman, 1893, p. 75; Kroeber, 1907, p. 418; Densmore, 1929, p. 93; Wissler, 1912, and 1916; Lowie, 1924 a, p. 335 ff.

[35] See medicine stone, p. 23.

[36] See warrior medicine, pp. 34-35.

778 sacred objects are wrapped in buckskin or cloth to protect them against exposure to unclean surroundings that might tend to defile such objects of sacred authorship.

778 787 The way in which such supernatural tokens are obtained by their owners is illustrated by the following. Once a man dreamed of seeing a plant, called by the Delaware, "frost" or "ice weed." He heard a voice which said to him, "I am strong and great. Stronger than any other plant because I stay green longer in the fall. Use me and I will make you strong." The man then went out and obtained a specimen of the plant for his medicine bundle. In another case a boy saw a horned toad in his vision and knew that it was to be his guiding spirit. He went out in search of a horned toad and finding one, picked it up, saying, "Give me your horn." At the command the toad gave the youth his horn which the latter kept until an old man.

778 The medicine bundle is the most highly cherished material possession of a chief, warrior or medicine man. He may possess one or more bundles which he has the privilege later of bestowing upon another. This seldom occurs until a man has reached an advanced age, the period at which he feels inclined to transfer his power and supernatural tokens to a younger man. The person chosen to be the recipient of this sacred gift must be spiritually and physically clean. He is called into conference with the older man several times before the actual transfer is made. Then it is given to him with the admonition that he must use the power wisely and keep the bundle from defilement to avoid forfeiture of the sacred gifts. At times medicine bundles are not transferred through the lack of a youth competent to deal with matters of spiritual import. In such a case the bundle is buried with the owner. Or, at the request of the owner, a bundle is given to a relative or to one of his own class, *i. e.*, a doctor or a warrior. Among the Delaware, medicine bundles are never sold.

778 787 Medicine charms are believed to be extremely potent in the hands of their owners. A man may commune with his guardian by means of these material agents and thus secure spiritual guidance and aid in regard to problems of a worldly character. Thus the medicine man seeks knowledge during his diagnosis of the often perplexing cases brought to his attention; the hunter, his mind filled with a keen desire for success in the quest of game, concentrates on the token of his supernatural helper during his appeal to the Giver of Game through prayer. Similarly, the

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warrior desires information as to the location of the enemy; the chief seeks for a clearer insight into tribal affairs in general.

So powerful are these agents of the spirit forces that if one speaks to them against his enemies, he will have the power to attack the latter by means of practices of a malevolent character. Such power is considered as basically evil and to be used only as a last resort. Supernatural power, in general, is believed to be given to the Delaware to accomplish good and not for matters of minor importance.

The Medicine Stone

A concretion secreted in the alimentary organs of certain ruminants is known to have been highly prized by the peoples of Europe and the Orient [86] for its alleged magical and medicinal properties. This unusual object is also known to and valued by the natives of the New World.[87] From the present-day Delaware, we have the following information on the medicine stone, one of their most sacred and invaluable possessions. It is comparable to the bezoar stone of Oriental fame and usually has a similar function—as an antidote for poison. Although such objects are known to be present in the digestive organs of different animals, that obtained from the blacktail deer (Odocoileus hemionus) is considered as the most potent variety. The Delaware call such a stone by the term meaning "emergency gift." From its use in rubbing a wound made by a snake or mad dog, it is sometimes known as "mad stone." They are of varying shapes and sizes and serve as protective agents for their owners. One may use such a charm to make medicine for another who is seriously ill or injured. In the case of illness pronounced fatal by others, scrapings from the medicine stone are infused in hot water and administered as a tea. Complete recovery of the patient is expected as a result. Witapanóxwe relates how warriors of the earlier period employed such a stone to heal fatal wounds. If it is not possible to administer it as a tea, the stone is simply rubbed over the body of the wounded person.

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[86] See article *Bezoar* in New International Encyclopedia, Vol. 3. Second Edition, 1924.

[87] I am indebted to Dr. John M. Cooper, Catholic University of Washington, Washington, D. C., for access to his manuscript on *The Bezoar in Aboriginal American Culture.*

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CURATIVE PRACTICES AND HERBAL REMEDIES

757 HERBAL REMEDIES recorded here may be divided arbitrarily into two groups—the simple and the compound. In the former group, one, two, or three different plant parts are mixed together as contrasted with those remedies of the second group which includes from seven to twenty vegetal substances, according to the specific sickness encountered. My informant stated that "man needs medicine made from many different plants to act upon his bodily organs, afflicted by the ills from which he suffers." Frequently Wi·tapanôxwe uses as many as fourteen different plant substances in making up certain medicines, while other herbalists are said to compound theirs from seven or more elements.[1] Thus we may cite the predominant occurrence of compound remedies among the Delaware in contrast to the simple remedies of the eastern and northeastern Algonkians (Speck, 1917).

757 278 The bark preparations noted immediately below are called "single" (simple) remedies by my informant, and are employed as a cathartic. In preparing and administering these medicines, the correct procedure should be carefully followed in each case. To avoid nausea, bark is customarily removed from smaller twigs and branches rather than from those of larger size. In the preparation of 1 b, c, d, and e, the branches are not roasted as in 1 a.

1. (a) BLACK WALNUT *(Juglans nigra)*, "round nut tree." Three slender branches are roasted in the open fire. The bark from each is then removed, by peeling from the tip end[2] and tied in separate bundles. A strong tea is made by boiling these three bundles of bark together and large draughts taken occasionally. To remove bile from the intestines, the treatment is continued for two days. The leaves are scattered about the house to dispel fleas while the sap is a good application for any inflammation. Juice from the green hull of the fruit is rubbed over the infected area to cure ringworm, "contagious skin disease."

[1] The native use of twelve different medicines which cause one to vomit and "thus remove his sins" is mentioned by Zeisberger, *op. cit.*, p. 134. Elsewhere (p. 55) he states that occasionally the Indians are able to effect a cure with only two or three kinds of roots. If a simple remedy does not bring relief, twenty or more are used.

[2] To cause vomiting, the bark is peeled upward on the branch.

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(b) MULBERRY *(Morus nigra)*, "surrounding berries tree."
(c) YELLOW BIRCH *(Betula lutea)*, "yellow willow."
(d) WHITE ASH *(Fraxinus americana)*, "brittle tree."
(e) BUCKTHORN *(Rhamnus caroliniana)*, "buckthorn."

2. HONEY LOCUST *(Gleditsia triacanthos)*, "accidentally thorned." The bark of the following species, honey locust, prickly ash, wild cherry, and sassafras are combined for a general tonic. This medicine is used for a severe cough and to purify the blood.

3. SYCAMORE *(Plantanus occidentalis)*, "shedding bark." The bark of the sycamore and honey locust are steeped for a gargle to relieve hoarseness and sore throat. Three chips taken from the east side of the honey locust and sycamore trees are steeped together with red oak bark and sweet flag root to make a hot drink for colds.

4. CHESTNUT *(Aesculus glabra)*, "big acorn tree." Nuts ground up and mixed with sweet oil or mutton tallow to make poultice for earache. A nut carried in the pocket will relieve rheumatism. Nuts ground up for use as fish poison in streams. This is known as "fish peyote," as it makes them "dizzy" and they can be caught easily.

5. SASSAFRAS *(Sassafras albidum)*. Bark of the root, together with other bark, used as a blood purifier. In spring employed as a beverage.

6. WHITE OAK *(Quercus alba)*, "gray tree." Bark is a valuable substance in Delaware medicine and is used in compounding many remedies. For a severe cough, a tea is steeped from the bark. For sore throat a stronger liquid is used as a gargle. Also makes an excellent douche; liquid used to cleanse bruises and ulcers.

7. PIN OAK *(Q. palustris)*, "black acorn tree." Infusion of inner bark given for intestinal pains. The acorns are edible.

8. RED OAK *(Q. rubra)*, "red oak." Bark is steeped to make a tea for severe cough. Will also relieve hoarseness.

9. BLACK OAK *(Q. velutina)* "bitter tree." Inner bark used for colds and hoarseness. Infused for tea and gargle.

10. REDBUD *(Cercis canadensis)*, "red bud." Bark steeped in cold water for a drink to reduce fever and stop vomiting.

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11. Cottonwood *(Populus deltoides,* or *Sargentii),* "tree with moving leaves." Bark from the black haw, wild plum, and cottonwood are combined to make tea for weakness and debility in women.

12. Black Haw *(Viburnum prunifolium),* "berries-in-sight tree." Bark taken from the root is combined with leaves of bloodroot, wild plum, pearly everlasting, "stone root" and bayberry to make a tonic to strengthen the female generative organs.

13. Elm *(Ulmus americana).* Inner bark steeped and liquid drunk for colds and severe coughs.

14. Dogwood *(Cornus florida).* The root is combined with others to make a tonic. In another variety *(C. canadensis),* "arrow wood," the bark is combined with that of other species to relieve body pains.

15. Peach *(Prunus persica)* leaves are infused to expel pin worms and to stop vomiting in children. A small quantity is sweetened and is drunk occasionally until relief is felt.

16. Holly *(Ilex opaca)* is designated as the "red berry tree." It is believed that holly grows up near the place where a person was frightened. If one became suddenly frightened, he remarks, "I guess holly will grow here because I was scared so badly."

17. Grape *(Vitis rupestris).* Vine is combined with bloodroot, pearly everlasting, "star root" *(sp.?),* false spikenard, peppermint, and sarsaparilla to make a tonic for frail women. It is also said to increase fertility.

18. Fox Grape *(V. vulpina),* "sour berry tree." Sap of the vine valuable in treating leucorrhea and when removed in spring, beneficial for the hair.

19. Elder *(Sambucus canadensis),* "hollow tree." The leaves and stems act as a blood purifier, also used in the treatment of jaundice. From the elder flower, a tea is made for colic in infants. The bark scrapings are used in making a poultice for sores, swellings, and wounds.

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20. Hops *(Humulus lupulus).* The blossoms are employed in medicine for nervousness. A small bag filled with hops and heated is useful as an application to relieve earache or toothache. A tea made from the plant acts as a tonic-stimulant.

[752] 21. Dwarf Sumac *(Rhus copallina),* "kinnikinnick tree." Roots pounded and applied as poultice for sores and skin eruptions. An

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infusion of the leaves is used to cleanse and purify skin eruptions. To treat venereal disease an infusion of the roots is taken. The berries are useful in making a mouth wash.

22. Wild Cherry *(Prunus serotina)*, "excrement tree." Bark used as remedy for diarrhea. Also combined with other roots and bark as a tonic. The fruit is sometimes used to make cough syrup.

23. Ginseng *(Panax quinquefolium)* is named "man and woman," a term descriptive of the human-like form of the root. The terms "Grandmother" and "Grandfather" are also given the plants, because they are usually found growing in pairs. The root is regarded as being very potent by the Delaware and may be used in treating either sex. In treating males, the "male root" is used, and vice versa. Plant is believed to have retreated, like others, before the advance of civilization and hence, is rarely found. It possesses medicinal properties which will, in many cases, effect cures where all others have failed. The root is diced in small particles, a tablespoon of which is added to a cup of hot water to make tea. The root is used with other plant parts as a general tonic.

24. "Frost" or "Ice" Weed *(Helianthemium canadense)*, was revealed to a Delaware in a dream in which the plant said, "I am strong and great. Stronger than any other plant because I remain green later in fall. Use me and you will become strong." Root used in making poultice for sore throat. Tea infused from plant taken at same time.

25. Poke *(Phytolacca decandra)*, "purple berry." The root of this plant is combined with the bark of sarsaparilla and mountain grape to make a remedy for rheumatism. It acts as a stimulant and blood purifier. In preparing the medicine, the root of the poke is first thoroughly roasted and then crushed. To avoid nausea, a small dose is customary.

26. Poison Ivy *(Rhus toxicondrendon)*, "irritating" or "blistering" vine. Not poisonous to everyone. The root contains valuable medicinal properties. A poultice is made from the roasted, crushed root. A salve effective for chronic sores and glandular swellings is made from the roots of poke (roasted), bittersweet, yellow parilla, and the bark of elder. These ingredients are placed in boiling tallow or lard, to which is added a medium-sized piece of beeswax. A more modern formula calls for the addition of one-fourth ounce of carbolic acid and two ounces of menthol crystals.

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27. Angelica *(Angelica atropurpurea)*, "to mix with smoking (tobacco)." Root used for stomach disorders; seeds sometimes mixed with smoking tobacco.
28. Anise *(Pimpinella anisum)*. Root used as a cathartic and stomach tonic.
29. Yellow Jasmine *(Gelsemium sempervirens)*, "yellow root." Root used as blood purifier.
30. The root of Staghorn Sumac *(Rhus typhina)*, "Cherokee sumac" is combined with that of "horse-hobble weed" or purple cone-flower *(Brauneria purpurea)* as a remedy for venereal disease. The patient should refrain from eating sour fruit and greasy foods. Water should be taken freely and often. [262]
31. Boneset *(Eupatorium perfoliatum)*. The root and occasionally the leaves are infused as a treatment for chills and fever.
32. Goldenrod *(Solidago juncea)*. The green leaves are chewed or infused to cure diarrhea. Also used to reduce fever.
33. Wintergreen *(Gaultheria procumbens)*. Entire plant is compounded with poke root, mullein leaves, wild cherry bark, and black cohosh bark *(Sp.?)* to make a tonic. Beneficial also for rheumatism.
34. Blackberry *(Rubus nigrobaccus)*. The vine is combined with wild cherry bark to cure dysentery.
35. Dock *(Rumex obtusifolius* and *R. crispus)*, "curly leaf." Root used as a blood purifier and remedy for jaundice.
36. Black Snakeroot *(Cimicifuga racemosa)*, stone root *(Collinsonia?)*, and root of elecampane *(Inula helenium)* are compounded to make a tonic.
37. Golden Aster *(Chrysopsis mariana)*. Tea made from the root to quiet infants. Also acts as tonic for sickly children.
38. "Turkey Foot" *(Sp.?)*, "leaves like turkey foot." Plant tip and root infused as a tea for weak women.
39. Prairie Moss *(Sp.?)*. Leaves used as poultice for sore throat. Plant infused as tea, called "tonsillitis medicine."
40. Cardinal Flower *(Lobelia cardinalis)*. An important plant for the Delaware herbalist. Tea made from the root used for typhoid. Administered in small quantities because of its strength.
41. Sage Willow or "red root" *(Salix tristis)*. Contains valuable medicinal properties of importance to Delaware herbalists. Tea

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made from root for women suffering displacement of womb. Used, together with roots of prairie willow *(Salix humilis)*, little burr *(Dentaria diphylla)* and false Solomon's seal to make a tea to treat scrofula and venereal disease.

42. Rattle-box *(Crotolaria saggitalis)*, "blown-over weed." A medicine for venereal disease is made from the root. It is a very strong narcotic.
43. Hedge Nettle *(Stachys palustris)*, "smart weed," is combined with common nightshade, "pretty flower," and button snakeroot to make a medicine for venereal disease.
44. Purple Cone-flower *(Brauneria purpurea)*, "white flower." This is called "Yuchi gonorrhea medicine" by my informant. A tea made from this root alone will cure an advanced case of venereal disease in seven days.
45. Ragweed *(Ambrosia artemisiaefolia)*. Plant used in making a poultice to apply as a preventative of blood poison.
46. Button Snakeroot *(Eryngium aquaticum)*, "to vomit." Used as a medicine for intestinal tape and "pin" worms.
47. Horsemint *(Monarda punctata)*. A tea made of the plant for fever, and to bathe face of patient.
48. Bayberry *(Myrica sp.)*. The bark is used as a blood purifier, and for kidney trouble.
49. Sweet Fern *(Myrica asplenifolia)*. Plant is steeped and liquid applied to blisters. Also combined with mallow root, elder flowers and dwarf elder to treat inflammation of the bladder. It is also good for scrofula. Is a blood purifier and useful in removing mucus from the lungs.
50. Pipsissewa *(Chimaphila umbellata)*. The plant is steeped and the liquid is applied to blisters. It is also combined with mallow root (?), elder flowers and dwarf elder bark in medicine for inflammation of the bladder. Also for scrofula. Purifies the blood and tends to aid in removing mucus from the lungs.
51. False Pennyroyal *(Hedeoma pulegioides)*. A tea is made from the leaves to relieve stomach pains.
52. Wild Carrot *(Daucus carota)*. Blossoms picked at full bloom are steeped as tea for diabetics.
53. Yarrow *(Achillea millefolium)*. A tea is made from the plant for disorders of the liver and kidneys.

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757 54. Prickly Ash *(Xanthoxylum americanum)*. "Bush with briars" or
278 "little thorn bush." Inner bark steeped as medicine for heart trouble. A small quantity is taken each day for three days, and after three days, the treatment is continued.

55. Wintergreen *(Gaultheria procumbens)*. A tea made from entire plant is taken for kidney disorders.

56. Cattail *(Typha latifolia)*. Medicine made from the root to dissolve kidney stone.

57. Partridge Berry *(Mitchella repens)*. A tea is made for suppressed menstruation. This remedy strengthens the female generative organs. In the treatment of rheumatism, the "herbal steam" treatment is considered of great value. A strong infusion is made from the roots or twigs of one of the medicinal plants useful for this type of sickness. The patient is seated with his feet in a basin of the liquid, made very hot, and a blanket then wrapped around the lower part of his body. Cold damp cloths are applied to the head during the steam treatment which lasts an hour or less. The upper portion of the body may also be steamed by raising the level of the blanket. This treatment is effective in reducing muscular swellings and stiff, aching joints. The following vegetal materials are used singly in this way:

58. (a) Bull Thistle *(Cirsium lanceolatum)*, "pretty flower."
(b) Poke.
(c) "Frost Weed."
(d) "Expert remedy," unidentified.
(e) Cedar *(Juniperus virginiana)*[8] particularly the twigs.
(f) Hemlock *(Tsuga canadensis)*.
(g) Dwarf Sumac.
(h) Hop Vine.

59. Blue Flag *(Iris versicolor)*, "blue flower" or "top like calamus." Medicine made from the root is valuable for rheumatism, scrofula and disorders of the liver and kidneys. Combined with the root of sevenbark *(Hydranga aborescens)*, it is used for gall stones.

60. Great Mullein *(Verbascum thapsus)*, "gray leaf." The leaves are heated and applied to the joints and body to allay rheumatism pain and reduce swelling. These leaves are combined with coltsfoot *(Petasites palmata)*, plum root, and glycerine to make a healing

[8] Speck, 1931, pp. 47, 127, 151, 171.

syrup for catarrh, coughs, and lung trouble. In preparing this remedy, the mullein must be gathered before the plant blooms.

61. Burdock *(Arctium minus)*, "big-leaved burr." A tea made from the root is good for rheumatism. Acts as a stimulant and blood-purifier.
62. Butterfly Weed *(Asclepias tuberosa)*, "where butterflies light." Root used as a remedy for pleurisy and rheumatism. Also administered to women following child-birth. Rattlesnake plantain *(Epipactis pubescens)* has the same term and is used in the same way.
63. Elecampane *(Inula helenium)*, "leaves like Indian cabbage." Root used in making a tonic, useful for strengthening digestive organs and to remove mucus from the intestines.
64. Toothwort *(Dentaria diphylla)*, "little burr." Root combined with other as a stomach remedy.
65. False Indigo *(Baptisia tinctoria)*. Liquid infused from root used in cleansing cuts and ulcers. Also employed as a douche.
66. Jimson Weed *(Datura stramonium)*. The leaves are crushed and applied to fresh wounds as a poultice. A salve for treating piles is made by pounding the seeds and mixing with tallow.
67. Common Plantain *(Plantago major)*, "path weed." Leaves crushed and used as a poultice. Plant combined with other plant parts is useful in treating female diseases.
68. Climbing Bittersweet *(Celastrus scandens)*, "yellow root." Root prepared as a poultice or salve for skin eruptions. Tea made from the root will clear up liver spots.
69. Skunk Cabbage *(Symplocarpus foetidus)*. A tea made from the root is useful in treating whooping cough. The leaves are crushed and used as a poultice to allay pain. People suffering from epilepsy often roll up a small portion of the leaf and chew it.
70. Sweet Flag *(Acorus calamus)*, "bitter." Root used in making tea useful for coughs, colds, and suppressed menses. Combined with sassafras root for intestinal pains.
71. Heal-All *(Prunella vulgaris)*. The plant top is used to make a cooling drink and body wash for fever.
72. Skull-Cap *(Scutellaria galericulata)*. The plant top is a stomach stimulant, and a laxative.
73. Catnip *(Nepeta cataria)*, "smells good." The leaves are prepared with peach seed to make a syrup, very beneficial for children.

757 278 74. MOTHERWORT *(Leonurus cardiaca)*. A tea is made from the leaves which is effective for female diseases.

75. FALSE SOLOMON'S SEAL *(Smilacina stellata)*. The root is combined with others as a medicine to cleanse the system and stimulate the stomach. A remedy also for leucorrhea.

76. MAY APPLE *(Podophyllum peltatum)*, "flower hangs down." A spring tonic and a laxative are made from the root.

77. BLOODROOT *(Sanguinaria canadensis)*. For general debility, a pea-sized piece of root is taken every morning for thirty days. Combined with other roots for a stomach remedy. The plant root provides the face paint used in the Big House Ceremony of the Delaware. [302 386]

78. DANDELION *(Taraxacum officinale)*. A laxative-tonic obtained from the plant.

79. VIRGINIA SNAKEROOT *(Aristolochia serpentaria)*. Used singly or combined with wintergreen as a tonic.

80. FRINGED GENTIAN *(Gentiana crinita)*. A tea made from the root acts as a blood-purifier and stomach-strengthener.

81. BLACK SNAKEROOT *(Cimicifuge racemosa)*, elecampane and stone root are combined to make a tonic.

82. MILKWEED *(Asclepias sp.)*. A tea made from the pounded and steeped roots of the five species of milkweed is a cure for epileptic fits in those born during certain phases of the moon. Such disturbances periodically occur during a particular moon-phase period.

751 757 278 797 83. PEYOTE *(Lophophora williamsii)*, "Our Father," is known to have been used to treat periodic fits, and is regarded as a sure cure for tuberculosis.[4] Wi·tapanóxwe carries a small, fringed leather bag, tied with deerskin thongs, containing several peyote "beans" or buttons for use in case of emergency. Certain Delaware subscribing to the "Wilson cult," wear a small beaded bag containing peyote, around their necks as a protection against illness. This talisman is even regarded as an advisory agent of approaching

[4] It is said that this highly valued and potent medicine was revealed to a woman in a dream who gave the knowledge of it to her people. It may be eaten with or without the usual ceremonial rites. For a study of the Peyote rites among the Delaware at Dewey and Anadarko, Oklahoma, see Petrullo, 1934. For more details, consult Safford, 1916, pp. 387, 424; Harrington, 1921, pp. 185-190; and the more recent study of LaBarre, 1938.

domestic and tribal crises. Witapanôxwe is not convinced of the truth of this statement, but claims that he merely carries his own supply for medicinal purposes.*

84. Cactus *(Opuntia vulgaris)* is called "thorny, useless." Witapanôxwe remarked that the Oklahoma negroes singe off the spines and apply a sliced portion to their corns to allay pain.

Miscellaneous Beliefs

1. To draw out frost bites, walk in the snow barefooted. Rubbing snow on the ears will bring relief.
2. Frost or dew gathered in late fall and rubbed on the body will prevent skin eruptions.
3. Water that collects in hollow trees or rocks is believed to have medicinal value.
4. Mud applied to a burn will take out "the fire."
5. To cure a child from slobbering, catch a number of minnows and have the child hold them in his mouth. Repeat this several times a week until the cure is effected.
6. To cure a child of bed-wetting, feed him portions of a roasted "timber rat" * This is believed to effect a sure cure. My informant and a companion once killed and roasted such a rodent, and both agreed that the flesh was palatable and not unlike that of squirrel. They were reticent, however, as to the therapeutic effects.
7. Relief is obtained in the case of whooping cough, if the mother first suckles a puppy and then her child.
8. A spider web applied to a flesh wound will stop the flow of blood.
9. Excrement of cattle or of poultry is employed as a poultice for boils.
10. Skunk-oil is regarded as a valuable remedy for colds and croup. For children the average dose is from three to five drops. A small quantity may be used externally on the throat and chest. Oil obtained from geese is employed similarly for colds. Skunk scent or rabbit urine is put into the ear to relieve earache. Deer and otter scent are also useful for medicinal purposes.

* This practice corresponds to one general among Eastern Algonkian peoples—that of carrying a piece of "muskrat root" *(Acorus calamus)* about the person as a disease preventive. A piece of the root is chewed in case of sudden illness.

* Compare use of a white-footed mouse for the same purpose among the Gayhead Indians (Tantaquidgeon, 1930, p. 20).

11. A syrup made by roasting onions is taken for colds. For infants and small children the syrup is sweetened and a few drops taken clear or in milk.

12. Mutton tallow is an emollient for chapped and irritated skin. It is used to make ointment.

13. Muscular cramps may be relieved by bathing the affected parts with urine.

14. A tea made from roasted, charred pig hoofs is beneficial for colds.

15. For snake bite suck the venom from the wound with a hollow piece of deer antler.

16. Treatment of sick horses. Years ago, after their migration westward, the Delaware used horses for travel. Often their animals would become ill during hunting activities on the Western plains. This was believed due to unsuitable drinking water or from eating poisonous weeds. Other disabilities were due to "bots"[6] or colic. For colic, strong tobacco juice, or gun-powder dissolved in hot water was administered. The most effective treatment was to throw a bucket of very hot water containing finely chopped bits of weasel hide[7] over the horse. Then the owner would force his weight up and down on the animal's abdomen or occasionally, beat it with a wet, heavy blanket for ten or fifteen minutes. The horse soon recovered and was again on his feet.

Warrior's Medicine

Warriors long ago also received gifts from supernatural agencies which enabled them to excell in feats of bravery. Their power came in dream-visions in which the identity of the supernatural was made known. Sometimes a power-song was granted at the same time. Certain men were appointed as leaders of the warriors and custodians of the secret formulæ, from which a particular preparation called "warrior medi-

[6] The larvæ of certain flies. Eggs are laid on the inside of the animal's foreleg, gain entrance into the blood stream and are carried to the alimentary tract where incubation takes place.

[7] The hide of the so-called "spotted weasel" is used for this purpose. My informant had never seen this animal but it had been described to him by his mother. It may refer to the ordinary weasel at the period of seasonal pilage change from brown to white. The species known to the Delaware are the Bonaparte *(Mustela cicognani)*, and New York weasel *(M. noveboracensis)*, Anthony, 1928, p. 102.

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cine,"[8] was prepared. Such formulæ were transferred from the warriors of one generation to another, in native theory only those known to live clean, pure lives being the recipients. A warrior carried a bundle which contained medicine and personal charms. The medicine stone[9] was used only in times of crisis.

Use of Wampum in Healing

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Shell wampum is used in treating cases of paralysis or similar afflictions believed due to failure of parents to fulfill certain ceremonial obligations or to breaking certain taboos. Before receiving treatment the patient presents one yard of wampum[10] to the medicine man. Potency is added to the herbal medicines by the wampum and enables the doctor to diagnose the case in a brief time.[11]

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The Otter Medicine

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The Otter[12] was regarded as the most sacred of all water animals. It figured in a ceremony described by Harrington[13] in which the spirit of the Otter was propitiated. In order to capture the animal a special lure was made. The formula for preparing such medicine[14] was in the custody of an old man of sufficient spiritual purity to withstand its great power. Certain roots,[15] cleaned by the old man in running water to the accompaniment of a song, were used. In doing so he was obliged to walk against the current, throwing water upon his tracks to conceal them. A secluded place was sought out for this preparatory rite. The medicine was hidden away from his dwelling lest it lose potency through the proximity of a woman. The medicine was considered very effective in luring other water animals, since it was a gift from the Otter, the most powerful of such creatures.

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[8] According to Zeisberger *(op. cit.,* p. 127) "The captains and others secure a *beson* (medicine) to preserve themselves from arrow and ball." Converse (1910, p. 168) notes the use of medicine made from the roots of corn, which the men drank. It afforded them such supernatural protection that "they could not be shot even though they were shot at seven times."

[9] See page 23.

[10] Measured from the shoulder to the wrist.

[11] The function of wampum in healing and in the ceremony of the Big House is discussed by Speck, 1931, pp. 52-53.

[12] *Lutra canadensis.*

[13] 1921, p. 176.

[14] Known as "otter medicine."

[15] The same plant, "pull up" *(Sp.?)* is also used in preparation of love charms (see p. 13).

The Dog as a Vicar of Children

231 751 854 Upon the birth of a Delaware child, it was given a pet [16] to serve as the guardian of its health. If there was sickness about, the Delaware believed that it would be visited upon the dog instead of its little master. The animal was thought to say, "I am only a dog, the child is more precious." A small bag containing charcoal was tied around the pet animal's neck by the child's parents. Frequently they would talk to the dog. If the animal died, it was buried and the child given another pet. However, if the child fell sick and died, a release ceremony was performed [17] by placing a string of wampum about its neck, thus freeing the animal.[18]

Notes on Pregnancy and Child-birth

843 262 784 The prospective mother is advised to eat sparingly. Sour foods should not be eaten during the final stage of pregnancy as they are believed to cause contraction of the muscles. Onions and cabbage are also excluded from the diet. Salt is forbidden both before and after pregnancy, as it is thought to stop the flow of blood. Lifting heavy objects should be avoided during pregnancy and for a period of a month after delivery. A pregnant woman should not gaze at a deformed person or make fun of him, as it might affect her child. Care is also taken to avoid being frightened by dogs and other animals.

844 The woman is usually attended by a midwife who is given gifts of calico, tobacco, etc., from the woman's husband. To women over thirty years of age, a special medicine is given to shorten the period of labor.[19] The delivery is made in a kneeling position. Immediately after, a tea made from "pleurisy root" is administered. The navel cord is cut off about one and a half inches from the body. A piece of lead about two inches in diameter is bound to the body over the navel by a cloth. This bandage is kept in place until healing is complete, to avoid protrusion of the navel.

845 In case of still-birth, special treatment is given the mother. Still-birth is believed due to the child being hurt. "The child-killing sickness of women is hard to overcome." Twins are believed to have been con-

[16] Known by a term meaning "pet given child."

[17] See also p. 67 for release of a bear.

[18] As dictated by Wi-tapanôxwe.

[19] "The women know of certain medicines," according to Zeisberger (*op. cit.*, p. 56), "which usually act quickly in case of hard labor, which sometimes occurs, though not frequently."

nected within the womb. If one is hurt, the other will feel it even though they are separated by many miles. A child whose mother died during its birth, must not be allowed to cry. Someone must try to comfort it so that the spirit of the dead mother may not injure, or even kill the foster parent. 845

Birthmarks are an indication that both parents have experienced difficulties with other people. During his youth one man conversed with a dead person in a vision. The skeleton said to him, "You should know me by the mark on your children. You will know more when they are born." All of his children (boys) had a characteristic pecularity about the eyes, lacking control of the lids so that during the day they blinked constantly. Sometimes a birthmark in the shape of a leaf or berry appears on the child. This is attributed to a dream by the mother. The fruit means good luck and long life. A mark formed like a reptile is considered an evil omen. 845 846 [787]

While nursing the child, the mother must refrain from intercourse with any man other than her husband so that the infant may not have diarrhea. 853 857

A few notes were obtained on the treatment of the hair and teeth of children. 851

When a child's hair is cut, it is left in some out-of-the-way place.[20] It was believed that if the birds used it in building their nests, the child would suffer from headaches. If the remains were burnt, it would cause the hair to become brittle.[21]

During the teething period, a little bag containing finely crushed charcoal is hung about the child's neck. The latter chews upon it to ease his aching gums. A loose milk tooth is pulled out by means of a string, its removal allowing the permanent tooth to grow in straight. The extracted tooth is taken outdoors by the child and thrown in the direction of the east, with the words "My tooth I place down here. I know when you return I will feed you white beans."

A child's nails are trimmed with a knife or scissors. Care is taken not to lose any of the nail trimmings, which are carried into the woods and left upon a stump. At the same time the following words are addressed to the Owl: "Grandpa, I now give you these, your grandchild's nails, to make frames for your eyes."

[20] This and the following paragraph were recorded by Eugene Golomahtok, University of Pennsylvania, 1930.

[21] In adult life gray hair, an indication of longevity, is not pulled out. Its removal would be displeasing to the Creator as a lack of respect for the aged. 888 [888] 302

4:Tantaquidgeon E-5 (1930) 1942
NM7 Delaware NM7

WITCHCRAFT

A TRADITION still existing among the Delaware relates of the development of witchcraft among the Nanticoke[1] and its introduction among the former prior to the period of their westward migration. The Nanticoke are said to have possessed a very powerful medicine which certain of them decided to use for malevolent purposes. Thereafter they went among the Delaware causing sickness which in most cases proved fatal. The Delaware people declined in numbers, but although greatly alarmed, were unable to destroy the guilty ones. Finally one night a man saw two large owls in a tree. He shot them. Upon reaching the spot where they had fallen, the bodies of two strange men were found.[2] It was decided that these were responsible for the black magic. Later two women arrived, searching for their husbands. When told the story of the owls and their fate, the women declared these to have been their husbands who had transformed themselves in order to work evil. This, according to the Delaware, marked the introduction of witchcraft into the tribe.

The present-day Delaware consider witchcraft to be an evil practice and the lowest form of shamanistic activity. There are, however, occasions when such power may be, as my informant phrased it, "legitimately used." If necessary to preserve one's life, it's use is not considered evil. This power was of such great force and potency that only the greatest shaman could break the spell inflicted by a witch. It is believed that the last of the witches died many years ago, their evil medicine buried with them.

Those men and women known to be adept in black magic usually received their malevolent power in dreams. Certain of them, however, acquired it of witches who before death transferred their power to others. Such witches who carried on their evil practices at night were called "night travellers." As a rule they did not mingle with other

[1] A statement by Zeisberger *(op. cit.,* p. 126) runs "By the Nanticokes the Indians have been instructed in the use of a peculiar kind of poison called *mattapassigon* meaning poison." This is probably the term translated here as "medicine for gaining influence," or "witchcraft." See Speck, 1937a, p. 135-142.

[2] This incident is contrary to a current belief among the Delaware and Nanticoke that a transformed person, if wounded, does not die until he reaches his destination and resumes his natural form.

people during the day lest they betray their evil power in some way, and thereby be accused. Their chief activity seems to have been that of annoying people, especially the sick, and of seeking revenge upon their rivals and enemies through use of their powerful medicine. But little is known of the actual nature or content of such medicine since it was always handled with the greatest secrecy. It is said, however, that such magic potions were concealed in small clay vessels, from which a small portion was removed. This was placed in the miniature pouch containing the supernatural token, by which the witch effected his transformation at will. A feather, claw, tooth, hair, or other part of a bird or animal capable of exerting evil influence, formed the medium of transformation. The small skin bag, "witch pouch," was carried suspended from a cord passing over one shoulder and across the body. It is said that a witch was unclothed as he travelled through the air, all the necessary equipment being carried in the pouch.

The clay medicine vessel was left in his dwelling by the witch. When one of the latter was taken and killed, his bowl was always sought and buried with him. Only by such an action could his power be completely destroyed. It was believed that if a witch lit his pipe before setting out upon his nefarious pursuits, he must return before the tobacco had completely burned out. He dares not stay longer lest he be discovered. A witch killed by a person lacking supernatural power will not die until his return home; if slain by a shaman, however, he succumbs immediately and is transformed into his human form. In former days a chief was free to order a witch put to death. The victim was dispatched by a blow from a war club and buried, together with his evil medicine.

My informant differentiated between a witch and a conjurer, indicating that the latter used his power for both good and evil, whereas all the activities of the witch were for malefic purposes. He related the following incidents which involved witchcraft.

> My mother told of the time she was bewitched. When a young girl, an older man wished to marry her. He asked her parents, but my mother refused his proposal. This made him very angry. Soon she became ill and as the cause was not known, a sweat doctor was called. Upon being given some tobacco, he set out to learn the cause of the illness. After a few visits, the doctor said that she was bewitched. Her parents could recall no one who might be responsible except the rejected suitor. After some time, a small bone

754 came from one of her fingers. It had been sent into her body by the witch. The sweat doctor had cured her.

The same witch wished to marry another girl. She was very young and considered the most beautiful girl on the reservation. As my mother had done, she refused the suitor, saying, "Why, I wouldn't marry that old man, and, besides, I'm too young to marry." When told of her answer, the old man said, "From this time on, if she ever sees her beauty again, it will be a surprise to me." So he set to work on her. In a few days she began to have trouble with her eyes. One night she awakened to see a human form standing over her. She felt peculiarly helpless and couldn't move. The strange person moved his hands across her eyes and disappeared. In a few days her eyes began to get sore and continued to grow worse until at last her sight was completely gone.

Later it was discovered that this blind woman had become a witch. She was married and had one daughter. The husband was of the Seneca tribe. Once she told her cousin, "I am getting old and there is something I wish to show you. Come to my house soon." The cousin became suspicious and delayed the visit as long as possible. Finally she went. The old woman showed her a trunk containing certain personal possessions, of which she was to take charge after her death. In removing them a snake skin was brought out and fell over the side of the trunk. While the visitor looked, the skin moved and as they talked, it wriggled back into the trunk. It seemed very unusual for the old blind woman to have such a snake skin. Finally she said to her visitor, "Now, I am going to die and I don't want this medicine to go out of the tribe. My daughter is old enough to take charge of it and I can't give it to my husband since he comes of a different tribe." The old woman died without anyone knowing what became of her medicine. Her cousin never admitted accepting it, but after her death it was found and buried with her. And that was the end of the witch medicine.

Those who were aware that a certain person was a witch rarely dared expose him lest they or some member of their family would become bewitched. This is clearly brought out in the following incident.

Once a Cherokee woman lived with the Delaware. She was very large and powerful, and was known as "Large-waist Cherokee Woman." Living with her was an adopted Delaware woman called "Day-light Person." Both women were old. Once the Cherokee took sick. Her friend believed that she went away at night, but never succeeded in confirming it. Finally the Cherokee informed her that she had been wounded. There was a bullet hole in her abdomen, in which she had stuffed grass to stop the flow of blood. The grass, however, had caused inflammation, so that she suffered greatly. At

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last she told her friend that she wished to confess. She said, "Now I am going to die and I want to tell you something. You must never reveal it or you will die also. I was out travelling (sic) one night and someone shot me." After her death, the other woman one day revealed the secret to some friends and soon after died.

[747]

One of the last of the Delaware witches is said to have joined the church, but continued to practice witchcraft. She believed that she could not find salvation because she had sold her soul to the Devil, but by joining the Church, thought she could secure some peace of mind.

[825]

The unnatural behaviour of birds or animals, as observed in dreams or waking life, has led people to regard them as transformed witches. Once a man saw a hog which, as he looked at it, seemed to grow longer and longer. He started towards the animal, but it retreated into the bushes. Thereupon he knew that it was a transformed person.

A second incident involved a young man returning home from a dance early in the morning. The path led through the woods and over a hill, at the foot of which stood a small cabin occupied by two old women. As he rode along, an owl flew quite low over his head towards the cabin where it disappeared. The young man told his people of the unusual flight of the owl and every one agreed that it was one of the old women returning home. Both had previously been suspected of witchcraft.

Another person had a similar experience with a boar. The man lived alone and one night, while lying on his bed, the door opened and in walked a large boar. The Indian, quite surprised by this, picked up a poker from the fireplace and attempted to drive out the animal. The boar ran around the table several times, without the man succeeding in striking it. Finally it escaped through the door. The man hurried outside and looked around, but the animal had disappeared entirely.

Many years ago a man about forty years old married a woman who was over seventy. My grandfather's brother lived with this couple. He was a powerful medicine man. After some years the old woman took sick and died. Her husband, a very vain, boastful individual, did not conceal his pleasure over her death. He was heard to say, "Now, I am the boss. See what I will do." My grandfather[1] soon atfer left the house. He walked away down the hill, frequently looking back at the house. After a while he returned. He had left to

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[1] In the Delaware kinship terminology one's grandfather's brothers are called by the same term as the grandfather.

754 prepare a magical snare by which to entrap the boastful widower. He set the snare at the doorstep of the house and went in and sat down. However, a visitor was heard approaching, and my grandfather quickly removed the snare so that an innocent person would not be harmed. Afterwards the invisible snare was reset and the intended victim stepped over it. Immediately after he suffered a congestive chill and by night, he was dead. His wife's corpse was still unburied and the day after her funeral, her husband's body was laid away. My grandfather did this to show that supernatural forces did exist to punish inhuman boasting. His people regarded this as an act of conjuring rather than witchcraft.

Persons who possessed the power of bewitchment were obliged to take at least the life of one human every year. During their annual meeting, if any witches had failed to do so, they deliberated upon the choice of a victim at that time. The belief was held by the Delaware that failure to do so would result in misfortune for the witch or his family through sudden illness or accident. Before a witch died, he must transfer his medicine to another to prevent the uncontrolled evil power from reacting upon a member of his family.

DREAMS

787 ALL DREAMS are regarded as significant by the Delaware. Some indicate good fortune and long life, while others fortell sickness and death. One type of dream of unusual significance is known by a term translated as "to dream ahead." Thus to dream of berries, fruit, or vegetation during the winter season is a sign that the dreamer will live to see the fruits of many seasons. To dream of snow at any time of the year is an indication of long life.

It is believed that the recurrence of the same dream for several nights is a sign of important news or even impending danger. In one such case, mentioned by Wi-tapanóxwe, his deceased parents appeared to him on six consecutive nights to warn him of an event which occurred a number of years later.

Long ago dreams were particularly significant to the Delaware hunter. Always in search of game animals for food, he was often led by the animal supernaturals in dreams to the secret places of the game. Upon awakening the hunter would offer a prayer and sacrifice a pinch of tobacco in his camp fire. Then he would follow the trail indicated to him in the dream.

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It is customary for the Delaware to learn in dreams names suitable for their children. During the later stages of pregnancy, the mid-wife or an old man is asked to think of a name and that revealed in a dream is later given to the child. Such a person need not necessarily be of the child's immediate relatives. Occasionally a gift is made him for this service.

To dream of catching fish in clear water is an indication that the dreamer will soon receive a sum of money. To dream of muddy water, on the other hand, is a sign of approaching illness or domestic difficulty.

To avert unpleasant dreams, a person smokes and prays to the Creator, appealing to him for aid in propitiating the supernatural powers responsible for such dreams. Cedar is also burned in the house to cleanse it. If a child is troubled by dreams at night, cedar boughs are soaked in water which is sprinkled over his person and the bed. This is believed to keep evil spirits away.

The more conservative Delaware have always been dependent upon dreams, and the appearance of certain celestial phenomena to warn them of impending danger. The appearance of a comet, "war spirit," in the heavens, is a sign of war. The "war dragon" flies through the air at night and appears like a streak of fire. The direction towards which its course is bent, is noted as the source of trouble. My informant reminded me of the appearance of such (Halley's comet) before the outbreak of the first World War. A falling star is also significant in war time. A fugitive attempting to escape may be located by means of a falling star, which the Delaware believe points to the spot of concealment. To point to a falling star will bring bad luck to a person.

NATURAL SIGNS AND OMENS

A FEW BELIEFS of miscellaneous character are noted for other natural phenomena. The two ends of the rainbow are believed to point to water. A snowfall late in the spring, with the wind to the north, indicates that the snow spirit is returning to his abode in the north. In the fall an abundance of berries and nuts, thick foliage and heavy corn husks all point to a long and severe winter.

[821]

A ringing or buzzing sound in the ear is a sign of impending death or bad news. The ear in which the sound is heard indicates the direction from which the news may be expected.

[761]

787 The twitching of the left eye, in the case of my informant, is a warn-
761 ing of the death of a relative or friend. This takes place two weeks or two months prior to the individual's death.

To see the suddenly disappearing likeness of a person is also a warning of death.

If a wolf barks at a person, it is an indication that he will live long.

Once Witapanóxwe, upon returning from the home of a sick person, saw a rabbit run from the shelter of a grave towards the house he had just left. To him it was a sign of the sick person's death in the near future.

787 Babies and small children are not allowed to cry at night nor older children to play after dark, for fear that their faces will become misshapen.

A "double crown" in an individual is an indication of longevity and superior intellect. The larger such features are, the longer is the possession to live and enjoy the blessings bestowed upon him by the Creator. An individual so blessed is assured of spiritual guidance and is likely to excel in his life work.

787 If chickens continue to scratch for food during a rain, it is an indica-
821 tion that the rain will continue for some time. A cock crowing during a storm says, "Going to clear off today." Crowing before midnight by the bird indicates a change of weather. Crowing on the doorstep brings a visitor.

If smoke from a fire rises during a storm, the rain will soon cease; if it hovers near the ground, the weather will continue unsettled.

If the sun casts slanting rays through the clouds, it is "drawing water." Rain will fall the following day.

When the wind blows the leaves "inside out," it is a sign of approaching rain.

A circle around the moon foretells an approaching storm. The number of stars within the circle indicates the time it will arrive.

To hear the sound of talking or cutting wood over a great distance indicates that a storm is brewing.

To see a hog carrying sticks of wood in its mouth is a sign of approaching rain.

"Three foggy mornings bring rain."

Thunder heard late in the winter foretells an early spring.

Loud reports from river ice indicate an early thaw. 787
A wolf "whinnying" (howling) denotes a change in the weather. [827]
To see a cat washing its face is an indication of an unexpected visitor; sharpening its claws denotes that it will soon receive some meat.

DELAWARE FOOD RESOURCES

IN AN EARLIER section it was pointed out that according to native belief, human health is dependent upon "pure, natural" food. Products of the fields and forests thus acquired a sacred character (Speck, 1931, p. 50), and food and medicine in Delaware conception were not totally unlike. It follows from this that the ailments afflicted the Indians in modern times are considered as being due to a departure from the ancient food regimen provided by the Creator. Investigation of the food supply, and its methods of preparation, was thought worthy of being taken up as part of the present phase of inquiry. The results are embodied in the present section, partly through their bearing upon health as dependent upon food. Except for this interrelation, the subject matter might seem to be more definitely an economic one. 262 [753]

Maize

Among the food products used by the Delaware, Indian maize *(Zea mays)* stands out as the staple vegetable product. Maize is believed to provide nourishment for the soul as well as for the body. The reverence for the Spirit of Maize[1] and for the processes of its preparation, still survives among the Delaware.

Before presenting the data which deals with the preparation of corn foods, it seems appropriate to mention native beliefs concerning the origin of this sacred food.[2] Maize, "original corn" or "common corn," is a gift from the Creator and in former times, according to Harrington *(op. cit.,* pp. 43, 141), was considered as one of the powerful 262 773

[1] Harrington, 1921, pp. 43, 193.

[2] For further information dealing with the maize complex in eastern North America, particularly among the Iroquois, see Parker, 1910; Converse, 1910; Waugh, 1916. The writer (1930) has noted the survival of certain traits indicating the presence of a religious rite in the early period among the southern New England tribes. For the Southeastern peoples, consult Swanton, 1928 b., pp. 443-444.

262 713 Spirit Beings. Zeisberger *(op. cit.,* p. 139) referred to Indian corn as the "wife of the Indian," and, in describing certain ceremonial rites, stated that they offered bear's flesh as a sacrifice to the corn. He also said that corn was offered ceremonially to the deer and bear. Apparently, Harrington (*ibid.,* pp. 70, 195) did not learn the details of this Corn-Spirit rite but the plant was, however, mentioned as a guardian spirit, Mother Corn. There is an interesting ceremony recorded by Dr. Speck[3] which the Delaware held to propitiate the spirit of Mother Corn whom they considered to hold protection over all vegetation. It is related that many years ago the corn crops began to decrease, so that people became alarmed. The leading men of the tribe met and agreed that to avert a famine, a ceremony must be performed to appease the Maize Spirit. It was feared that she had become displeased and intended to abandon her children, the Delaware. In this way the Corn Harvest Rite originated and the performance of its ritual made the occasion of a festival.

262 252 Corn also figured in the ceremonial diet of the participants of the Big House Ceremony. Dr. Speck (1931, p. 73) notes that corn flour and hominy were prepared and served by women attendants.[4] These foods were prepared in wooden mortars kept expressly for ceremonial use.[5] As was previously stated, corn gruel or hominy is considered to be the proper food for sick or convalescing persons.[6]

Indian corn of the variegated variety is known as "common" or "original corn" [7] Another variety, called "hollow corn," is ground into flour for use in making bread.

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[3] 1937a, pp. 79-90. In addition to the Corn Harvest rite and Corn Famine text, Dr. Speck has an account of the Vegetation Ceremony now performed bi-annually in the spring and fall. These gatherings are now called "Bread Dances" and in addition to the performance of a ritual, afford an occasion for recreation. Both men and women take part.

[4] The three men and three women who are responsible for the ceremonial equipment and assist in a ceremonial role in the nightly performances during the period of worship in the Big House. (Speck, 1931, pp. 71, 75.)

[171] [5] A similar observance has been recorded for the Mohegan of Connecticut and the Indians of Wampanoag extraction at Gay Head, Mass. See Tantaquidgeon, 1930, pp. 5-7.

[6] See Diet, p. 14.

[171] [7] I have observed that my own group at Mohegan, Conn., and the people at Gay Head, Mass., regard varied-colored corn to be the original variety and value it very highly.

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So far as could be ascertained, the use of corn medicine and fish fertilizer in corn hills, is the only vestige of the ritualistic complex now associated with maize cultivation.[8] My informant stated that in former times it was customary to use medicine in which corn was soaked to prevent cut worms. At present, seed corn is soaked in water and hardwood ashes. Fish bones were burned and combined with wood ashes and put in the corn hills as an offering to the Maize Spirit. Corn, beans, and squash were planted together, but the legend of the Three Sisters (corn, beans, and squash) [9] so prominent in Iroquois mythology, is absent.

The different varieties of maize are not planted near one another because, it is said, "One will visit the other and forget to come back."

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When corn matures one must share the first gathering with a less fortunate tribesman or with some old person. This rule applies to all crops as well as to the first kill.[10] In order that people may continue to receive the blessings of the Creator, every man is obligated to share his first fruits and game with others, before partaking of them himself. The practice of sharing vegetable food with a neighbor is known by the term, "I feed you." A hunter offering animal flesh in observance of this rule, used the phrase, "I give you some meat."

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There are several methods employed in preparing corn as food.

(a) The husk is taken off and the ears laid in the sun until thoroughly dry. The grains may then be removed and pounded into hominy grits.

(b) After removing the husk, the ears are boiled until thoroughly cooked. They are allowed to cool, the grains removed with a spoon and spread out to dry.

(c) The ears are laid before the fire and roasted.

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Early records indicate that corn parched and crushed to meal, served as a very nourishing food which was indispensable to the hunter or

[8] The Iroquois observed the practice of soaking seed corn in a medicine especially prepared from certain plants. "In ancient times they enriched the soil with both fish and shell." (Waugh, *op. cit.*, p. 18.)

[9] The corn, bean and squash complex is discussed by Parker, 1910, p. 36, and Converse, 1910, p. 63.

[10] According to Zeisberger (*op. cit.*, p. 84) a hunter before setting out upon a long hunting trip, would kill a deer or two and prepare a feast as a sacrifice to the game. The old people as invited guests would pray for his good fortune during the expedition.

252 traveller of that period.[11] Zeisberger (*op. cit.*, p. 22) mentions two
251 varieties of corn meal which the Indians prepared for use on long journeys. Dried, unroasted corn was crushed to a meal or roasted in hot ashes and then pulverized. The meal was mixed with sugar, or water, and then eaten. Occasionally it was boiled in water. Heckewelder (*op. cit.*, p. 195) says that their *Psindamocan*[12] or *Tassmanane*[13] is the most nourishing and durable of their corn foods. He adds that they preferred the blue, sweet variety for this meal, and that with but a little of this food, they set out on long journeys.

252 Among the present-day Delaware the variety of corn used and the methods of its preparation, are the same as noted by Zeisberger and Heckewelder. However, due to the scarcity of "squaw" or variegated corn, it is now regarded as a ceremonial food. The corn is thoroughly parched and then pounded in the hominy mortars. The fine meal resulting is hominy or "traveling food." This may be eaten either mixed with water or with milk and sugar. The grits ground medium fine are cooked with meat, the combined food being called, "whole face hominy," and used in the Masked Dance Ceremony.[14] The coarse grits are called "hail stones." These are cooked and eaten with milk.

Dry, unparched corn is made into flour or pounded medium fine or coarse. The flour is used in making bread. A soft dough is made and rolled into a flat cake like a biscuit which is dipped in cold water and put in the ashes to bake. This bread is known as "put-in-the-ashes bread." Bread dough to which is added chili beans or raisins is put in greased vessels and baked in the Dutch oven. Dumplings stuffed with chopped meat are boiled. The coarse hominy is boiled

[11] Williams (1827, p. 33) mentions *no'kehick*, a parched meal used by the Narragansetts. He says in part, "I have travelled with neere 200 of them at once neere 100 miles through the woods, every man carrying a little basket of this at his back and sometimes in a hollow leather girdle about his middle sufficient for a man for three days." Waugh (*op. cit.*, p. 88) says, in writing of Iroquois corn foods, "There was apparently no more popular hunting or traveling food than this preparation in olden times. It was light and nourishing and could be eaten cooked or raw." In the Mohegan-Pequot dialect it is known as *yo'keg*, "corn parched and pounded," and among the Wampanoag descendants at Gay Head, it is called *no'cake*. In the two latter groups it is prepared in precisely the same manner as among the Delaware (See Tantaquidgeon, *op. cit.*, pp. 6-7).

[12] I was unable to obtain a translation of this term but my informant recognized it as pertaining to corn meal food.

[13] "Dried corn product."

[14] See Speck, 1937a, p. 52.

and used in different ways. It may be eaten with milk and brown sugar or with any kind of meat grease. A little salt may be added for additional flavor. 252

Various kinds of nut meats are added to cooked hominy to make a dish known as "nut hominy." Hominy and chopped meat (beef, pork or other fresh meat) are cooked together and then allowed to stand until sour. After hickory nuts are added to this mixture, the result is called "soured nut" hominy.

Hulled corn is made by boiling dried corn in a strong liquid, made alkaline by the addition of hard wood ashes. This process of preparation is long and arduous, since after hours of steady boiling it requires many washings in clear, cold water to rinse the lye from the loose hulls. This food may be eaten with milk and sugar, fried with potatoes in pork fat, combined with fresh or dried meat for stew, or with beans for succotash.

Wild Vegetable Foods

Long ago fruits and berries were preserved by drying, this practice giving way in later times to canning and the manufacture of jelly and jam. Dried fruit are prepared to eat in a number of ways. Grapes are boiled, and the resulting liquid thickened by the addition of corn meal, flour, or hominy grits. A boiled pudding is composed of dough made of cornmeal and flour, or flour only, to which any variety of berry, except strawberries, may be added. This dough is then placed in a cloth bag and boiled. When ripe, persimmons are mashed and spread on a cloth to dry for use in a bread called "persimmon bread." With few exceptions all of the fruits and berries mentioned are made into pies, puddings, preserves, fruit butters, and jams. 222 251 252

The various varieties of nuts are gathered in large quantities and stored away for future use. These provide a nourishing supplement to the remainder of natural food stuffs. Nuts are eaten raw, roasted, boiled, and frequently incorporated in other types of food. Edible acorns are usually roasted.

With the introduction and increased use of European food products, the necessity arose among the Delaware of fitting them into their own linguistic configuration, if the foreign terms themselves were not taken over. Like so many primitive groups, the Delaware came to apply native terms of a descriptive nature to the majority of elements foreign to their culture. Many of these have been retained to the 196 262 177

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196 present day. Thus, for example, the Delaware term for the cocoanut
262 is "water hickory nut."

"Indian Potato" or Ground Nut *(Apios tuberosa)*, "wild potato."
222 The tuberous roots are gathered in large quantities and stored for
252 winter use. They are not considered good after sprouting. The roots are either boiled and eaten as the cultivated potato, or dried and ground into flour used for making bread. In recent times the ground nut has not grown abundantly in the Delaware habitat, and is now considered a rare delicacy.

Sorrel *(Rumex acetosella)*, "sour." This plant, prepared much like rhubarb, is used as a filling for pies.

Onion *(Sp.?)*. Of the different varieties of wild onions, three are regarded by the Delaware as being edible. The one most commonly gathered for use is the "buttonseed." These are dried and prepared by frying, or boiling, or are added to flavor stews and soups. Wild onions are also cooked in grease to which eggs are added.

A species of mushroom *(Agaricus campestris)*, "tripe form," is fried in hot fat, or salted and boiled.

Certain plants are considered to be healthful foods, especially in spring, when people were in need of the medicinal substances present in them. The practice of seeking the first green plant shoots in early spring is not peculiar to the Delaware alone, but is characteristic of other Eastern Algonkian peoples. Such food is called "greens" or "plant tops." The young shoots are usually picked and cooked separately, or mixed with several other plants. In both cases the "greens" are parboiled in water, and then cooked with meat. Among such plants may be mentioned dandelion, milkweed, poke, lamb's quarters, mustard, dock, and watercress.

Animal Foods

825 Wild animals, as pointed out by F. G. Speck (1931, pp. 28-29), are
224 in general considered to exist in clan relationship with humans. The latter are said to be "kings among animals." Clean, pure animals of the forests are referred to in terms of human relationship and their spirits must be propitiated before they can be sought for food. If the supernaturals are appeased through sacrifices, the animals will allow themselves to be taken, but if the proper ceremonies are not carried out, they can never be approached by humans. Therefore a hunter before starting out, is obliged to pray and sacrifice tobacco, and also if he should dream of seeing game during the hunt. The Delaware "sharing-feast"

described by Zeisberger, has previously been referred to (p. 47). Special medicine lures for hunting are also prepared by the hunter.

The Delaware consider the bear and the deer to be the greatest of all animals. The bear is also called "Our Grandfather." Both animals are considered closely akin to the Indian, but the Delaware believe that the bear has the most human-like traits. The antelope, a creature of the later Delaware environment, is regarded as a sacred, pure animal. Of the water animals, the otter is regarded as supernaturally the most powerful.

During the chase, the hunter is careful not to unduly excite the game pursued, since the flesh of such an animal is apt to cause illness when eaten. The same treatment holds for the capture and killing of domestic animals and fowl. Formerly bison, bear, deer, otter, beaver, the smaller animals, and wild fowl provided meat for the Delaware diet. In the latter period squirrels, rabbits, and domestic animals replaced the increasingly rare, larger species.

After an animal was killed, all parts of it were utilized; the flesh for food; the hide for shelter, clothing, robes, and bags; the bones for implements, and the teeth for ornaments, etc. The hide was removed by the hunter forcing his fist between it and the flesh, thus working around the body until the hide was loose. The use of a sharp instrument for this purpose, would, it was claimed, cut and thus spoil the hide. All fat from the bison, bear, deer, and domestic animals was saved and stored in a rawhide container. The intestines were cleaned, filled with blood or meat, and cooked. The flesh of the larger animals was usually roasted. A fire was built in a pit and the carcass placed upon a scaffold above it. A slow fire was kept burning, over which the meat was turned until it was thoroughly cooked.

Meat was preserved in one of two ways—by smoke-drying or immersing it in grease. In drying, thin slices were suspended over a slow fire. In the latter process alternate layers of partially cooked meat and hot lard were placed in a large earthen crock until filled. Slippery elm bark, cinnamon, and allspice were added to the grease for flavor.

Stews and soups were made of fresh meat, to which hominy or corn meal dumplings were added. The flesh of small animals, from which the scent glands had been removed, were also preserved by smoke-drying. If a deer, or other animal, was killed during the mating season, the animal's testicles were immediately removed. An Indian hunter usually killed only male animals.

Fish were fried or cooked in a stew or soup. Formerly fish were preserved by drying.

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APPENDIX I

Nanticoke Folk Beliefs

121 My reason for incorporating the following material is based upon the close historical affinities of the Nanticoke with the Delaware over a period of time so long that both groups must be considered ultimately to have sprung from a common source. The intimate association of
175 the two peoples has been maintained through the period of their co-residence in southeastern Pennsylvania and continued during the course of their migration northward along the Susquehanna River to the Iroquois. It seems hardly necessary to point out again that branches of both tribes were adopted by the Six Nations at the same time[1] and maintained their representatives in the Council of the League uninterruptedly down to the present day.

175 While the Delaware have preserved some semblance of their former culture through the varied accidents which befell them in their north-
177 ward and westward flight, the Nanticoke have more thoroughly succumbed to acculturation from alien influences. Yet it is the latter people only who have left descendants within the area formerly occupied by
[131] them in the Delaware Bay region, the mixed community located in the district known as Indian River Hundred, Sussex County, Delaware. In view of what has already been written about this community,[2] it seems hardly necessary here to review its history.

115 The Nanticoke informants employed in this investigation were Chief Russel Clark, his wife, Florence Clark (née Drain) and their son Ferdinand, who later succeeded to his father's office; the three Wright brothers, Warren, Elwood, and Walter; Willie Harmon, his wife, Annie, and their daughter, Janie; Lincoln Harmon and his wife, "Patia"; Levin Street and family, and a Mrs. Bumberry; and lastly Howard and Eliza Anne Johnson. It may be of interest that Chief Clark some years ago took the name of Wyniáco, the term held by the Nanticoke emperor.

177 It will be obvious to the ethnologist that no attempt is made to identify the following data as characteristic of Nanticoke culture of the pre-European period. In comparison with the preceding Delaware data, the notes to follow represent a fusion of disparate culture influences, the total effect of which is very non-Indian in character.

[1] In 1735 at the invitation of the Cayuga.
[2] Speck, 1913, 1922 and 1927.

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For the layman, attention is called to the assumption that the Nanticoke, like other native peoples, were actuated by a spirit of inquiry into the natural world, such as to lead them to experiment with plants and plant substances introduced as the result of white contact. Such post-European elements and their application to useful ends belong to the later culture of the Indians and accompanied changes in their physical and social environment as well as in their racial composition. The task of identifying these cultural components and of determining their origins is not one for the present. The question, therefore, of the sources of Nanticoke ideas and practices of the present day is not included in the scope of this paper. The material has its bearing upon the development of the Nanticoke as an ethnic community, even though its analysis be left for a wiser day of culture reckoning.

My own experience with the Nanticoke was gained through the gathering of medical folklore, a task started independently in 1921 and continued during annual visits thereafter until the Pennsylvania Historical Commission provided funds for this research in 1931. I have attempted to incorporate in the present study all previously compiled material, both published* and unpublished, concerning the subject of my immediate interest. That more remains to be collected from the inexhaustible memories of the Nanticoke descendants scarcely need be added. One community in particular, at Cheswold, Delaware, which comprises people of similarly hybrid ancestry, still represents an untouched source for the collection of new material. This particular group was thought by Chief Clark to be more distinctly Delaware than Nanticoke, so far as possible Indian blood is concerned.

Medicine Practices

A number of methods are in use among the Nanticoke to avert or cure whooping cough. It is believed that a string or necklace of deerskin will protect the wearer against this disease.

If a woman marries without changing her name, *i. e.*, marries a man of the same name, she can cure her children of whooping cough by feeding them bread stolen from her neighbors. One informant stated, however, that it is bread stolen from such a woman that effects the

* I have included my own version of those Nanticoke folk-lore items which originally appeared in Speck, *The Nanticoke Community of Delaware* (1915). This duplication has seemed advisable in order to bring together the present collection of data in one place.

[155] cure. In the first, a friend was often asked to leave bread where it could be taken unseen.

Another method of treating whooping cough involved securing as many cockroaches as there are children affected, and naming one after each child. Then each child placed a roach into a bottle which was then tightly corked. The sickness is believed to pass with the death of the insect. During this period it is necessary, however, to keep the child's bowels open, else the charm may react and kill him.

A person living in the city is advised to put a cockroach in a thimble, tie it up in a cloth and wear it around the neck. "You will never whoop after wearing it."

For chicken pox, the child affected is placed before the open door of a chicken house, so that the chickens in coming out, fly over him.

To cure lameness, an earthworm is placed in a bottle which is then hung up somewhere. After the worm decays, the residue is rubbed on the affected part.

[157] [278] Pellets of yellow pine *(Pinus echinata)* tar are considered beneficial for soreness of the back, and as a cathartic.

For rheumatism, an eel-skin is bound around the part affected. Similarly, to ease a backache, the skin of a blacksnake, removed entire from the living reptile, is worn around the waist (one old Nanticoke is said to have obtained a fresh skin every spring, which he wore constantly).

In another treatment of rheumatism, the person is taken to the seashore, and at the water's edge, buried nude in the sand with only his head exposed. He remains there for about an hour. Two Nanticoke men are known to have been cured in this way.

[157] [278] To cure infants of colds, tea is made from calamus or "muskrat" root *(Acorus calamus)* and administered. A tea brewed from "Horsemint" *(Monarda punctata)* or skunk cabbage *(Symplocarpus fœtidus)* leaves is also good for colds. The Nanticoke believe that "chills" can be "promised away" by a healer or witch.

In another treatment of chills, notches equal to the number of attacks, are cut in a stick. The person then goes to a stream flowing east throughout its course, throws the stick over his left shoulder into the water, and walks away. He will have relief within a day of two.

If a child suffers from croup, he is stood against a door-joint and his height marked. After he outgrows the mark, the croup will leave him.

A remedy for sore throat is to place the bent thumb inside the sick person's mouth so as to force his jaws far apart for a period of five minutes. 755

A syrup made from star-grass is good for a cough. 757

Pipsissewa *(Chimaphila umbellata)* is steeped and drunk plentifully for the ague. 278

To prevent fever in summer, the petals of the first hepatica flower encountered that spring are chewed. This plant *(Hepatica americana)* is called "chills and fever."

Mullein *(Verbascum thapsus)* leaves are applied to allay fever. To prepare them the leaves are spread out, dipped in vinegar and then bound about the forehead, wrists, back of the neck, and soles of the feet. For a time the leaves are kept moist with vinegar.

Wild thyme *(Thymus serphyllum)* and boneset *(Eupatorium perfoliatum)* are steeped together and taken for chills and fever.

Fever and ague, very common in this region, are believed due to going barefoot or swimming in the river too early in spring. These ailments are warded off in the spring by drinking "sarsafack" or sassafras *(Sassafras albidum)* tea, which is "cooling to the blood." [751]

For pains in the stomach a cup of water into which tobacco smoke has been blown, is drunk. Tobacco smoke is blown into a child's mouth to cure colic. To treat indigestion, the gizzard of a chicken, previously kept from eating filth, is eaten without being cleaned.

A necklace made from kernals of a red ear of corn is worn as a protection against nose-bleed. Another method is to wrap a dried spider in cloth, and place it in a thimble to be suspended from the neck. Other treatments include pushing a cobweb up one's nostrils or dropping a bunch of brass keys down one's back. 751

It is also believed that recital of the following Biblical verse (Ezekiel 16:6) will cure nose-bleed, but only for a person of opposite sex. "When I passed by thee, I saw thee polluted in thy blood, and I said unto thee, Live: and thou didst live in thy blood: yea, thou didst live in thine blood." 755

A good lotion for sprains is made of the root of the false indigo *(Baptisia tinctoria)* plant and aspen *(Populus deltoidea)* bark. Also beneficial in this connection are the macerated roots of devil's shoestring *(Yucca filamentosa)* made into a poultice. 757 278

Warts, it is believed, can be "charmed away" with the spittle of certain persons with such power. Another treatment is that of rubbing

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them with prickly pear *(Opuntia vulgaris)*. A split joint of the same plant is also applied to relieve inflammation from insect stings or bites.

Another way of removing warts is to rub them with a stone found at a crossroad, as one walks along. Then the stone is thrown over the left shoulder and the person continues on to his destination. The wart will disappear in a few days.

To relieve frost bite, the bladder of some animal is bound over the affected part. Gall from an animal source is also considered beneficial.

Shingles are cured by rubbing grease from a black hen or the tail of a black cat upon the sides of one's body.

The leaves of burdock *(Arctium minus)* are steeped and applied to boils.

Poultices are made of the leaves and stems of a plant called "King Cole oil weed" *(Sp.?)*.

To rid oneself of intestinal worms, the leaves of a plant called "fish weed" *(Sp.?)* are chewed. Snake-root *(Aristolochia serpentaria)* is steeped and drunk for the same purpose.

The Jewel weed plant or "balasm" *(Impatiens biflora)* is steeped and used to make a poultice for burns.

Skin cuts are healed by covering them with cobweb and binding a silver dollar over the wound. Soot from the chimney is also useful for this purpose.

To relieve earache, tobacco smoke is blown into the ear.

"Cow-itch," which generally affects people in the fall, is treated by wearing a piece of red yarn tied around the toe. The whole foot may also be placed in hot cow dung for this skin disorder.

Sores ("dew poison") are believed to come on one's feet from walking barefoot in dewy grass. This trouble is treated by bathing the feet in a liquid steeped from fuzzy, white leaves called "mouse-ears" *(Sp.?)*.

"A splinter from a tree struck by lightning will cure toothache." A treatment for aching teeth is to pick up an old jaw-bone of a horse by the teeth, and to walk forward counting each step until the burden must be dropped. The number of steps taken indicate the number of years before the attack will recur. One informant who tried this, counted to one hundred.

Grease obtained from a black hen is rubbed on the aching gums of teething infants. Another remedy is to roast the brains of a dead rabbit and rub a small amount on the gums. Another informant removes the "knowledge-bone," an odd-shaped bone from a hog's ear, and sus-

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pends it by a cord from her child's neck. A mole's foot inclosed in a small bag is also worn for the same purpose. A number of the Nanticoke carry a mole's foot in the pocket as a good luck piece to gain money.

The berries of sand myrtle *(Leiophyllum buxifolium)* are used to make wine, and a spring tonic.

Pennyroyal *(Hedeoma pulegioides)* and tansy *(Tanacetum vulgare)* are both employed as sudorifics. The former is also regarded as an excellent remedy for kidney and liver troubles.

The grated root of the arrow-arum *(Peltrandra virginica)* is given with milk to babies.

Several plants have local folk names, although no medicinal efficacy is ascribed to them. Milkweed *(Asclepias syriaca)* is called "frog's milk." Wild gooseberries *(Grossularia sp.)* are known as "Devil's berry" because "when they ripen one at a time and fall off during the night, they say that the Devil picks them off."

Weather Signs

If killdeer plovers ("kildee") are observed to flock and call on a calm morning, the wind will come up. These birds as well as others, are believed able to say certain words. Thus the killdeer says "Wind blow, wind blow!"

The flight of wild geese is also regarded as a sign of approaching wind.

If chickens continue to feed in the rain, it is an indication that the rain will last for some time. The Nanticoke believe that the fowl, aware of continuing rain, eat before they take shelter. If shelter is sought when the rain begins, the rain will not last long.

If the surf (the ocean is about ten miles from the village) can be heard, one may expect an east wind bringing rain the following day.

Another indication of approaching rain is the flocking together of crows or blackbirds.

If hogs become restless and start to pick up sticks, cobs, etc., as for a bed, the Nanticoke believe that a storm is approaching.

The appearance of the sun during rain denotes rain the following day. When this occurs the Nanticoke say that the Devil is beating his wife. Similarly if the sun appears while it is snowing, the "Old Man" (Devil) is picking his geese.

The point on the horizon where the Milky Way appears to rest indicates the direction from which the wind will blow the next day.

821 787 The appearance of a sun dog (parhelion) is an indubitable indication of approaching storm.

If a snake is killed, thrown into the branches of a tree and is caught [825] by them, it will rain the following day. The day will be clear, however, if the dead reptile falls clear.

The crowing of a rooster after nightfall denotes bad weather.

Snow is to be expected if wood sputters in the fire.

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787 "If you mock a mourning dove, some time he will burn you."

825 The cooing of the turtle-dove indicates the direction in which one's lover is located.

The first cry of the whippoorwill in spring marks the time to plant corn.

A black animal of any kind crossing one's path at the beginning of a venture is a forecast of bad luck. One should turn back and go another time.

821 A falling star foretells a disappointment.

787 At the first sight of the new moon, one should remove his pocketbook and shake it towards the moon for good luck.

If the new moon is first seen with one's arms full of objects, times will be difficult during the month. If a person has his arms full of brush on this occasion, he will be carrying brush during most of the month. If his arms are empty, but little work will be done during this period.

The Jack-o'-lantern is a kind of spirit which pursues people and brings misfortune. If one is seen, the observer turns his pockets inside out to avert the evil. One informant claims to have seen several of such spirits one night issuing from a dead stump.

787 A ringing noise in the ear is known as "death bells" and announces [761] the demise of a relative or friend.

Nanticoke men visit each others' homes on New Year's Day, the first one to arrive at each house being given fifty cents. For a woman to come to the house on this day is regarded as an ill omen.

[825] Like the stork in Europe, the Fish Hawk *(Pandion haleætus carolinensis)* is venerated by the Nanticoke. To kill one or disturb a nest is regarded as a "sin." These birds build their nests near the Indians' homes, generally in the limb of a dead tree in an open field and return to them year after year.

The Buzzard *(Cathartes aura septentrionalis)* likewise is never molested. 787 825

If a scorpion lizard *(Sceloporus undulatus)* or "scorpion," as it is known locally, gets on a person and runs completely around his body, it is a sign that the person will die. [761]

To hand a person a closed knife will bring bad luck. The blade should be opened. 787

After severing the umbilical cord of an infant, it should be disposed of by burning lest misfortune ensue. If the cord is dropped, the baby subsequently will be unable to retain its urine. [844]

If an excess of saliva runs from a baby's mouth, empty a thimbleful of water into the tea kettle when it is nine day's old. That will prevent the child from slobbering. 854

"When we cut our hair, we put it in the stove and burn it. I clean my comb every morning and throw the loose hair in the fire. If it blazes, it means a long life but if the hair burns slowly and chars, they say a person won't live long."

If some of a person's hair is used by birds in nest building, it may result in a loss of mind.

The deciduous teeth of children are thrown in the fire. "If a dog should swallow one, a dog's tooth will grow in the child's mouth."

To shape a baby's head round, press its forehead with the right hand, the back of the head with the left, three times a day for four weeks. [856]

An infant's nose may be shaped by pinching it gently several times a day.

To hear a hen crow is bad luck. The bird should be killed. 787

If a rooster crows near the door of the house, a visitor is to be expected. 825

When the cry of the turtle dove is heard, one may sit down, take off his shoes and find inside of one a hair of the same color as that of one's future wife.

The small eggs often laid by chickens are called "latter eggs." They indicate that hen is through laying for the season.

It is regarded as unlucky to burn sassafras wood in the fire; the crackling sound made by this wood in burning will develop ill temper in some member of the family. There is no aversion to burning grapevine, as among the Pamunkey. 372 777

Sweeping out the house after nightfall is regarded as "sweeping out your luck." 777

751 484 "While moving a house, carry a broom and some salt and you'll always be clean and well."

224 In going out to hunt, the first animal or bird encountered should be killed "even though it's nothing but a sparrow."

252 Oil is prepared from walnuts, thickened and used in the preparation of food.

787 A spider hanging from the ceiling announces the approach of a stranger.

"A boy born to look like his mother is born to fortune; the same is true for a girl who resembles her father."

854 757 A crust ("crisp") of soot taken from the chimney is placed in a cloth bag and steeped in a half cup of hot water. This "tea" is considered beneficial for indigestion of babies.

824 A "mushrind" (mushroom) is believed to grow from frog-spawn.

825 Snails or slugs are never harmed. A slug is believed to be an immature snail, too young to have a shell. "It hunts around to find an empty shell and occupy it."

To bite off the head of a moth or butterfly is to secure a new suit of clothes of the same pattern as the insect's wings.

The eyes of the bullfrog are "popped-out" because he was run over by a "timber cart." Hence the remark, "it is hard on the eyes," made of a youth who refuses to fight.

832 The affections of a girl can be gained in the following way: An empty bottle is tightly corked and taken to a stream that flows east throughout its entire course. A string is fastened to the bottle and then secured to a tree near the stream. The bottle is placed in the water so that the current will draw the string taut. Then a picture of the loved one is drawn in the sand with a stick, the mind being held intent upon its desire. The arrangement is then left undisturbed. As long as the string holds the bottle, so long will the girl's affections be retained.

754 A person's death may be brought about by placing a lock of his hair in a hole bored in a pine tree in the winter, and plugging it up. Sometime in March the sap will rise in the tree and result in that person's death within a year.

832 767 To win the affections of a person of the opposite sex, go to a well at noon on the first day of May and hold a mirror so as to reflect the surface of the water below. The image of the person that the observer is to marry will appear in the mirror. If marriage is not in store for

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that person, the image of a coffin will appear instead. A variant of this involves gazing down into the water for the image to appear.

Another method of viewing the likeness of one's future husband is to tie the ends of two balls of yarn together and take them to the upper story of an old, deserted house. Then throw one yarn ball out of the window, retaining the other in the hand, and repeat the following lines:

"I wind my yarn,
Who'll wind agin' me?"

The girl's intended will then pick up the yarn and start to rewind it.

An incident was related by the Nanticoke to illustrate still another means of looking into the future. In employing this device a girl must wash her underclothing and hang them before the fire to dry. During the night her prospective husband will come and turn them to dry on the other side. A girl carried this out and next morning found that her garments had been turned and a knife thrust into them. She kept the knife. Some years later she married and told her husband of finding the knife. His reply was, "Yes, I put that knife there and now I am going to kill you with it. You nearly caused me to lose my life by a fall from the rigging of a ship." It was believed that the man's spirit left his body while he was working aloft on a ship, causing him to fall many feet to the deck and suffer severe injury.

For the following test, the services of two people of the same sex are required(?). An egg is boiled hard and allowed to remain in water for a whole day. The egg is then broken, the yolk removed and the resulting space filled with salt. The hardened egg white and salt are then eaten without drinking water and without speaking. Then the subject walks backward from the room, goes upstairs backward and gets into bed in the same way. If he or she dreams that night, the one who brings a drink of water in the dream is the future spouse. During the entire night complete silence must be maintained.

A test of similar purpose is also carried out by two persons of the same sex. At midnight, after the lights are turned very low, the principals sit opposite each other at a table and eat ash cake. The figure of the future wife or husband will appear in the door and walk across the room. If one is to remain single, a coffin will be seen beside one's chair.

One Nanticoke informant recalled an incident of two sisters each of whom wished to know the identity of her future husband. They undertook such a test as was just described and made the necessary arrangements for the "silent" meal in advance. Upon promising not to con-

787 verse, their brother was allowed to witness the procedure. The door of
832 the house was opened wide and secured, to prevent its closure by the high wind usually arising upon such occasions. The table was set for two and each girl, in turn, cooked an egg, and some meat for her lover, the food being placed on the table. Just then someone drove up outside, a young man walked in and sat down at the place set by one of the girls. Immediately following him were two men bearing a coffin which they placed beside the chair of the second sister. At the sight of this morbid object, both girls screamed, causing their ghostly visitors and the coffin to disappear. Some years later, according to the recital, the first girl married the man revealed to her that night but her less fortunate sister died within a short time. The informant added that while the meal was in progress, the prospective suitor lapsed into a brief coma which permitted his spiritual visitation at the rite.

787 Dreams and their significance form an interesting topic of conversation in the typical Nanticoke household. One informant stated, "Some
826 are born to see sights. If their veil (caul) is saved, they can talk with the dead; if lost, they will be timed and cannot talk with those in the other world. People who have such power aren't afraid of ghosts."

A number of the Nanticoke rely upon their dreams for advice along various lines. One woman stated that she had been perplexed as to the proper placing of a flight of steps by which to descend to the grove and beach in front of her dwelling. One night she had the following dream:

"I was standing out in front yard astudyin' 'bout where to put me steps. Pretty soon, Ralph (my son who's dead) came right up to where I was standin' and said, 'Mom, what's ye studyin' 'bout?' and I says, 'Tell me where to put me steps.' He said, 'Put 'em right chere.' And so I did."

One night she had a dream in which she talked with a daughter who died some years previously. "I saw Eunice there and she looked natural. I said, 'Don't you want to go home with me?' 'No,' she said, 'I'm happy here and I have lots of time off. Anyway, you'll all be home with me before another year passes. The world hain't goin' to stand long'."

Suggestive of the veil which separates them from the spiritual realm is a Nanticoke case in which a sister communicates in a dream with her brother whose death occurred some years previously. The scene of the dream was an attic room, a fence separating the two. They could not converse together but wrote their questions and answers on a sheet of paper which was held up and read by each one in turn.

It is said that in dreams the dead always appear natural and never 787
dressed in "grave clothes."

One man said that his mother seldom had a dream but when she did, it was usually of importance. On one occasion she dreamed of a wonderful place to catch fish and told her husband about it. Following her instructions he found the spot and caught a great quantity of fish. Another time they lost the smokehouse key. In a dream she saw the place where it was hidden from view in tall grass. Next day she went to the spot and found the key. "Somebody had dashed it in the grass waist-high."

To dream of one's teeth falling out, is a forecast of a death in the [illegible] family.

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APPENDIX II

USES OF MEDICINAL PLANTS AMONG THE CANADIAN DELAWARE

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THE following notes on the medicine practices of the Six Nations Delaware, Grand River Reserve, located near Hagersville, in Brant County, Ontario, Canada, were recorded during a visit to the reserve in November, 1931. The group consists of about 150 individuals of mixed Indian and white blood. Only a few, however, have any knowledge of the language and traditions of the Delaware who once inhabited the section of the country now known as Pennsylvania, New Jersey, and New York. To find the identity and location of the predecessors of the band now in question, who migrated to Canada, will be impossible until a comparative study has been made of the various vocabularies.

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I am indebted to Mrs. Martha Peters Hill, Nicholas Powless, his sister, Mrs. Maracle, Joseph Montour, John Lickers, and Walter Moses for aid in securing the Delaware information herein presented.

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In contrast to the ceremonies connected with the various processes of healing as employed by the Oklahoma Delaware, we find only a few traces of such rites among the Delaware of Canada. Plant parts to be used for medicinal purposes should be gathered when the vital properties are in that part of the plant (the flower, root, etc.), to be used. One informant added that plants should be gathered before the fireflies appear. When seeking herbal plants, the first of the desired species should not be plucked. It is customary to pass on to another of the same variety and there dig a small hole beside the plant and in it place an offering of tobacco. If a large quantity of herbs were gathered, they were tied in bundles and allowed to dry in the sun, to prevent mould. Some dried their plants in a warm room.

When bark is used it is taken from the east side of a tree; only the inner bark, which is usually peeled downward, is used. Roots may be scraped or cut into small portions.

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Medicinal plants are regarded as being sensitive to handling, and when brewing medicine, care must be taken to refrain from stirring the mixture while it is steeping. After being thoroughly steeped, the medicine is removed from the fire, and if necessary, stirred only toward the

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right. It is never cooled by blowing upon it. Running water should be used, and it was customary in former times to dip the water with or against the current, or to submerge the container and allow the water to flow in from all sides.[1]

The term *"doctol,"* from English doctor, was the only term for an herbalist obtainable from those interviewed. It is also said both men and women could become practitioners. When calling upon a doctor for treatment it is customary to offer him a present of money. In former times, cloth, tobacco, and other gifts were offered.

GREAT MULLEIN *(Verbascum thapsus)*.

The leaves are crushed and applied as a poultice to bruised surfaces to reduce swelling and allay pain.

NANNYBERRY *(Viburnum lentago)* and mullein leaves are steeped and the tea administered in case of measles.

LIVE-FOREVER *(Sedum telephioides)*.

The leaves are crushed and used as a poultice to draw out poison. My informant regarded this to be a most powerful and effective application. He stated that he had suffered from a serious case of infection which resulted from stepping on a rusty nail and that the above remedy cured him in a short while.

PLANTAIN *(Plantago major)*.

The leaves are crushed and applied to bruises.

BURDOCK *(Arctium minus)*.

The leaves are bound on the body to reduce pain. The root is used in making medicine for purifying the blood.

HORSERADISH *(Radicula armoracia)*.

The leaves are applied as a poultice in case of neuralgia.

BITTERSWEET *(Celastrus scandens)*.

The root is used for making medicine which is administered to persons suffering from consumption.

TANSY *(Tanacetum vulgare)*.

The plant is used in making medicine which is effective in treating disorders of the stomach.

[1] My informants could not explain this but said that the water must be dipped in different ways according to the nature of the disease to be treated. It is a common belief that water dipped *with* the current acts as a laxative and *against* it acts as an emetic. Allowing the water to flow into the container from all sides suggests the idea that the remedy to be made would tend to benefit the entire system.

278 BONESET *(Eupatorium perfoliatum)*.
757 This is considered to be a very powerful medicinal herb by my informants and it should be used with great precaution according to their belief. Tea made from the leaves is beneficial as a stomach medicine.[2]

ELECAMPANE *(Inula helenium)* root and poplar *(Populus tremuloides)* bark are steeped together and the liquid drunk to relieve a cold.

CATNIP *(Nepeta cataria)*.
A tea made from the leaves is regarded as a soothing drink for infants.

WHITE PINE *(Pinus strobus)*.
The twigs are steeped to make a medicine which is effective in treating disorders of the kidneys. It is also administered to persons suffering from pulmonary diseases.
[753] The pitch is applied to boils to draw out the poison and reduce the pain.

SWEET FLAG *(Acorus calamus)*.
The root is scraped and hot water poured over it and drunk in case of colds.

BLOODROOT *(Sanguinaria canadensis)*.
A small quantity of the powdered root is added to a half a cup of lukewarm water and a teaspoonful to stop vomiting. The root is also used in combination with other plants in making a blood purifier.

YELLOW OAK *(Quercus muhlenbergii)*.
To stop vomiting, pour water over a piece of the bark and when the water becomes a yellowish tinge drink a small quantity of it.

IRONWOOD or AMERICAN HORNBEAM *(Carpinus caroliniana)* root or bark, and the bark of juniper *(Juniperus communis)*, white oak *(Quercus alba)*, wild cherry *(Prunus serotina)*, and hickory *(Carya ovata)* are steeped together for a tonic. A small bundle of some of each is put into about a pint of water. The mixture is steeped down

[2] This plant so commonly used by both Indians and whites in those sections of eastern North America where it is indigenous, appears to be regarded as being too powerful to be tampered with by the Six Nations Delaware informants. The Oklahoma Delaware, however, use the plant freely.

to about half the quantity. An equal part of brandy may be added. This is considered to be a month's treatment for one person and is considered to be effective in treating cases of general debility. It is valuable as a remedy for diseases peculiar to women.

My informant (Nicholas Powless) stated that he had bought the remedy, as is customary, from a Delaware herbalist. After a prolonged illness, during which time he was in the hospital, Mr. Powless was brought home, as he said, apparently to die. He obtained the formula just noted, made up the medicine and is taking it daily. He claims that he has continued to regain his strength and is slowly recovering from a complication of diseases pronounced incurable.

A tea made by pouring hot water over a small quantity of soot is given to babies in case of colic. A stronger tea is beneficial for a sick cow.

A powder obtained from decayed pine *(Pinus strobus)* is used for babies because of its healing properties.

SUMAC *(Rhus typhina)*.

A tea made from the berries is drunk as a remedy for diarrhea.

Skunk oil and molasses is taken for colds and cramp. The oil rubbed on the throat and chest sparingly tends to relieve congestion. Goose and raccoon oil are used similarly.

Rattlesnake oil is valuable in treating stiff joints. It is very powerful and should be used sparingly. Only a few drops on the finger tips and applied to the affected parts. The skin may be bound on the wrists and ankles to strengthen them.[8]

[8] When told of the belief that snake oil, if used alone, "will unjoint you," an idea common among the Wampanoag of Cape Cod, Mass., my informant laughed and said that he knew that it would not because he had used it on his joints with good results. His sister added that if he could obtain some rattlesnake oil, now he might keep in better condition.

APPENDIX III

THREE OKLAHOMA DELAWARE MYTHS

The Boy Who Lived With a Bear

539 "Once a small boy was lost in the woods. A woman with two children came along and took him with her to her house in the woods. But the boy soon discovered that this friend was a bear with two cubs and that the house was a great hollow tree trunk. One day a young hunter was out in the woods and he saw the little boy in a tree with the two cubs so he went back and told his people. The mother bear knew that soon they would come to take the boy away from her and she felt very badly because she had grown to like him as her own. And she knew, too, that when they came for the boy she would probably lose her life. So she cried and begged him to take his little bow and arrow and hold them near the entrance of the den so that the hunters might know that he was in there, but the boy would not do as she bid. Finally, the hunters came and called the boy, but he would not come out. The bear came out and the hunters killed her and took the boy and two cubs. The boy was returned to his family, but living in a house was strange to him after living with the bears in their den, and he had queer ways. The cubs were raised until they were full grown and then they were released by performing a ceremony with wampum which is always done when pets are to be no longer kept by a family." (See p. 36.)

The Woods Dwarf

"*Maté·kanis*, 'woods dwarf,' lived in the forest. He was kind and was always helping people, but only a few were known to have seen him. He was discovered by a little boy who went to play alone in the woods one day. The little boy liked *Maté·kanis* so much that he went to play with him often. When the other children asked him where he had been he would say, 'I have been to play with my little friend who lives in the woods.' Sometimes he could see *Maté·kanis* near where the other children were playing and would point to him but his playmates could not see the little brown creature. He is said to look like a small boy but is strong and powerful. Only certain people were known to

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have seen *Maté-kanis* and they usually became noted for their physical strentgh. *Maté-kanis* is not seen any more because the Indians have changed their mode of living and are not clean enough to be visited by such spiritual beings. The white man's ways are so far removed from the ways of the Indian that if we adopt any of them we cannot expect to see many of the things which were commonly seen before we knew of his strange ways." [1]

The Seven Wise Men

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"Years ago there were seven wise men among the Indians. So great was their pride that they did not wish to associate with the common people. Because they were so wise and great, they had to find a way to conceal themselves from the people. After thinking over the matter very seriously they said, 'We will turn into rocks of odd shapes.' Now there happened to be a young man who was gifted [1] and he went out to walk on a hillside. As he walked along he noticed the seven peculiarly shaped rocks and as he stopped to look at them, one of them spoke to him. The young man recognized them at once as being the seven prophets and they conversed together. They told him not to tell where they were, but someone noticed his frequent visits to the spot, and soon they were again sought by curious people. Now they must leave the quiet hillside and go elsewhere. After a while there appeared in the forest seven stately cedar trees. More perfectly formed trees were never before seen and they were greatly admired. It was not long before someone discovered that they were the seven prophets and they again had to change their form and depart. The Creator thought that it was of no use to place them on earth as they were being constantly bothered by earthly things so he placed them in the heavens. There we see the seven stars [2] as they were placed there so long ago by the Creator."

[1] According to Wi-tapanóxwe every individual is "gifted" or has some supernatural power. In some it is developed early in life, while in other individuals it remains a latent undeveloped force.

[2] The Pleiades.

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PLANTS AND PLANT USES OF

	Botanical Name	Common Name
222	1. *Achillea millefolium*	Yarrow
262	2. *Acorus calamus*	Sweet Flag
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824	3. *Aesculus glabra*	Buckeye
	4. *Agaricus campestris*	Mushroom
	5. *Allium canadense*	Wild Onion (small)
	6. *Amaranthus retroflexus*	Pigweed
	7. *Ambrosia artemisiaefolia*	Ragweed
	8. *Anaphalis margaritacea*	Pearly-everlasting
	9. *Angelica atropurpurea*	Angelica
	10. *Apios tuberosa*	Indian Potato, Groundnut
	11. *Apocynum cannabinum*	Indian Hemp
	12. *Aralia nudicaulis*	Sarsaparilla
	13. *Arctium minus*	Burdock
	14. *Aristolochia serpentaria*	Virginia Snakeroot
	15. *Artemisia frigida*	Wild Sage
	16. *Asclepias (5 species)*	Milkweed
	17. *Asclepias tuberosa*	Butterfly Weed
	18. *Baptisia tinctoria*	False Indigo
	19. *Betula lutea*	Yellow Birch
	20. *Brassica nigra*	Black Mustard
	21. *Brauneria purpurea*	Purple Cone-flower, "Horse-hobble weed"
	22. *Carya cordiformis*	Bitternut Hickory
	23. *Carya ovata*	Shell Bark Hickory
	24. *Carya glabra*	Pignut
	25. *Castanea pumila*	Chinquapin
	26. *Cercis canadensis*	Redbud
	27. *Chimaphila umbellata*	Pipsissewa
	28. *Chrysopis mariana*	Golden Aster
	29. *Cimicifuga racemosa*	Black Snakeroot
	30. *Cirsium lanceolatum*	Bull Thistle
	31. *Cornus canadensis*	Bunchberry
	32. *Cornus florida*	Dogwood
	33. *Corylus americana*	Hazelnut
	34. *Crotolaria saggitalis*	Rattle Box
	35. *Datura stramonium*	Jimson Weed

THE OKLAHOMA DELAWARE

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Native Use	Part of Plant Used	Type of Medicine
Medicine (liver and kidneys)	Entire plant	Simple
Medicine (cold, stomach-ache, suppressed menses)	Root	Compound
Medicine (poultice; utility fish poison)	Nut pulverized	Simple
Food		
Food		
Food	Use with others as greens	
Medicine (blood poisoning preventative)	Entire plant as poultice	Simple
Medicine (tonic)	Root	Compound
Medicine (stomach)	Root	Simple
Food	Root	
Mats		
Medicine (tonic)	Root	Compound
Medicine (rheumatism)	Root	Simple
Medicine (tonic)	Root	Compound
Medicine (ceremonial)	Leaves chewed	
Medicine (epilepsy)	Root	Compound
Medicine (rheumatism, healing drink following childbirth)	Root	Simple and compound
Medicine (wash for cuts, ulcers)	Root	Simple
Medicine (cathartic)	Bark	Simple
Food	Young shoots	
Medicine (venereal disease)	Root	Simple and compound
Food	Nuts	
Food	Nuts	
Food	Nuts	
Food	Nuts	
Medicine (reduce fever, stop vomiting)	Bark	Simple
Medicine (bladder, blood purifier)	Plant	Compound
Medicine (infants, frail children)	Root	Simple
Medicine (tonic)	Root	Simple and compound
Medicine (rheumatism)	Root	Simple
Medicine (body pains)	Bark	Compound
Medicine (tonic)	Root	Compound
Food	Nuts	
Medicine (venereal disease)	Root	Simple
Medicine (poultice for cuts)	Leaves, seeds	Simple

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PLANTS AND PLANT USES OF

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Botanical Name	Common Name
36. *Daucus carota*	Wild Carrot
37. *Dentaria diphylla*	Toothwort
38. *Diospyros virginiana*	Persimmon
39. *Epipactis pubescens*	Rattlesnake Plantain
40. *Eryngium aquaticum*	Button Snake-root
41. *Eupatorium perfoliatum*	Boneset
42. *Fragaria virginiana*	Strawberry
43. *Fraxinus americana*	White Ash
44. *Gaultheria procumbens*	Wintergreen
45. *Gaylussacia baccata*	Huckleberry
46. *Gelsemium sempervirens*	Yellow Jasmine
47. *Gentiana crinita*	Fringed Gentian
48. *Gleditsia triacanthos*	Honey Locust
49. *Hedeoma pulegioides*	False Pennyroyal
50. *Helianthemium canadense*	"Frost" or "ice" weed
51. *Humulus lupulus*	Hops
52. *Hydrangea aborescens*	Sevenbark
53. *Ilex opaca*	Holly
54. *Inula helenium*	Elecampane
55. *Iris versicolor*	Blue Flag
56. *Juglans nigra*	Black Walnut
57. *Juniperus virginiana*	Red Cedar
58. *Leonurus cardiaca*	Motherwort
59. *Lobelia cardinalis*	Cardinal Flower
60. *Lophophora williamsii*	Peyote
61. *Mentha piperita*	Peppermint
62. *Mentha canadensis*	Wildmint
63. *Mitchella repens*	Partridge Berry
64. *Monarda punctata*	Horse Mint
65. *Morus nigra*	Mulberry
66. *Myrica sp.*	Bayberry
67. *Myrica asplenifolia*	Sweet Fern
68. *Nepeta cataria*	Catnip
69. *Opuntia vulgaris*	Prickly Pear
70. *Panax quinquefolium*	Ginseng

OKLAHOMA DELAWARE—Continued

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Native Use	Part of Plant Used	Type of Medicine
Medicine (diabetes)	Blossoms	Simple
Medicine (scrofula, venereal disease)	Root	Compound
Food	Fruit	
Medicine (poultice; female disorder)	Leaves	Simple and compound
Medicine (venereal disease)	Root	Compound and simple
Medicine (chills, fever)	Root	Simple
Food	Berries	
Medicine (cathartic)	Bark	Simple
Medicine (tonic)	Plant	Compound and simple
Food	Berries	
Medicine (salve)	Root	Compound
Medicine (stomach; blood purifier)	Root	Simple
Medicine (tonic)	Bark	Compound
Medicine (pain in stomach)	Leaves	Simple
Medicine (strengthening)	Plant	Simple
Medicine (nerves)	Blossoms	Simple
Medicine (gallstones)	Root	Compound
Medicine (tonic)	Root	Compound
Medicine (rheumatism; liver; kidneys)	Root	Compound
Medicine (cathartic)	Bark	Simple
Medicine (rheumatism)	Twigs	Simple
Medicine (female disorder)	Leaves	Simple
Medicine (typhoid)	Root	Simple
Medicine (consumption; periodic fits; emergency med. charm)	"Bean" or "Button"	Simple
Medicine (tonic)	Leaves	Compound
Medicine (suppressed menses)	Plant	Simple
Medicine (fever)	Plant	Simple
Medicine (cathartic)	Bark	Simple
Medicine (female generative organs)	Root	Compound
Medicine (poison ivy)	Leaves	Simple
Medicine (tonic for children)	Leaves with peach seed	
Not used		
Medicine (effective in any severe illness. Most potent med.)	Root	Simple and compound

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Botanical Name	Common Name
71. *Phytolacca americana*	Poke
72. *Pimpinella anisum*	Anise
73. *Plantago major*	Plantain
74. *Platanus occidentalis*	Plane Tree
75. *Podophyllum peltatum*	May Apple
76. *Populus sargentii*	Cottonwood
77. *Prunella vulgaris*	Heal-all
78. *Prunus americana*	Plum
79. *Prunus persica*	Peach
80. *Prunus serotina*	Wild Cherry
81. *Pyrus communis*	Pear
82. *Pyrus coronaria*	Crab Apple
83. *Pyrus malus*	Apple
84. *Quercus alba*	White Oak
85. *Quercus macrocarpa*	Bur Oak
86. *Quercus velutina*	Black Oak
87. *Quercus palustris*	Pin Oak
88. *Quercus rubra*	Red Oak
89. *Radicula nasturtium-aquaticum*	Water Cress
90. *Rhamnus caroliniana*	Buckthorn
91. *Rhus copallina*	Dwarf Sumac
92. *Rhus toxicondendron*	Poison Ivy
93. *Rhus typhina*	Staghorn Sumac
94. *Ribes rotundifolium*	Gooseberry
95. *Ribes triste*	Swamp Currant
96. *Rubus canadensis*	Thimble Berry
97. *Rubus nigrobaccus*	Blackberry
98. *Rubus villosus*	Blackberry
99. *Rubus occidentalis*	Black Raspberry
100. *Rumex acetosella*	Sheep Sorrel
101. *Rumex crispus*	Dock
102. *Rhumex obtusifolius*	Dock
103. *Salix humilis*	Prairie Willow
104. *Salix tristis*	Sage Willow, "Red Root"
105. *Sambucus canadensis*	Elder

OKLAHOMA DELAWARE—Continued

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Native Use	Part of Plant Used	Type of Medicine
Medicine (rheumatism)	Root	Simple and compound
Medicine (cathartic)	Root	Simple and compound
Medicine (poultice; also female disorder)	Leaves	Simple and compound
Medicine (colds, sore throat)	Bark	Compound
Medicine (laxative; love charm)	Root	Simple
Medicine (female disorder)	Bark	Compound and simple
Medicine (fever)	Top	
Food	Fruit	
Food	Fruit	
Medicine (tonic)	Bark, Fruit	Compound
Food	Fruit	
Food	Fruit	
Food	Fruit	
Medicine (antiseptic)	Bark	Compound
Food	Nuts	
Medicine (hoarseness)	Bark	Simple
Medicine (intestinal pains)	Bark	Simple
Medicine (hoarseness)	Bark	Compound
Root	Plant	
Medicine (cathartic)	Bark	Simple
Medicine (ceremonial tobacco mixture)	Leaves, Root	Simple
Medicine (salve)	Root	Compound
Medicine (venereal disease)	Root	Compound
Food	Berries	
Food	Berries	
Medicine (dysentery)	Vine, Berries	Compound
Berries used as food	Berries	
Food	Berries	
Food	Berries	
Food	Plant	
Food	Plant	Simple and compound
Medicine (food)	Root, Young Shoots	
Medicine (venereal disease)	Root	Compound
Medicine (womb displacement; venereal disease)	Root	Compound
Medicine (salve) (fruit edible)	Bark, Berries	Simple Simple

PLANTS AND PLANT USES OF THE

	Botanical Name	Common Name
222 262 278	106. *Sanguinaria canadensis*	Bloodroot
824	107. *Sassafras albidum*	Sassafras
	108. *Scutellaria galericulata*	Skull Cap
	109. *Smilacina racemosa*	False Spikenard
	110. *Smilacina stellata*	False Solomon's Seal
	111. *Solanum dulcamera*	Bittersweet
	112. *Solanum nigrum*	Common Nightshade
	113. *Solidago juncea*	Goldenrod
	114. *Symplocarpus foetidus*	Skunk Cabbage
	115. *Stachys palustris*	Hedge Nettle
	116. *Taraxacum officinale*	Dandelion
	117. *Tsuga canadensis*	Hemlock
	118. *Typha latifolia*	Cat-tail
	119. *Ulmus americana*	American Elm
	120. *Vaccinium pennsylvanicum*	Lowbush Blueberry
	121. *Vaccinium corymbosum*	Highbush Blueberry
	122. *Verbascum thapsus*	Great Mullein
	123. *Verbena hastata*	Blue Vervain
	124. *Viburnum prunifolium*	Black Haw
	125. *Vitis* (various sp.)	Wild Grape
	126. *Vitis rupestris*	Wild Grape
	127. *Vitis vulpina*	Wild Grape
	128. *Xanthoxylum americanum*	Prickly Ash
	129. *Zea Mays*	Corn
	130. *Zea Mays identata*	Dent Corn
	131. *Zea Mays indurata*	Flint Corn
	132. *Zea Mays amylacea*	Flour Corn
	133. *Zea Mays saccharata*	Sweetcorn
	134. *Zea Mays everta*	Popcorn

OKLAHOMA DELAWARE—Concluded

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Native Use	Part of Plant Used	Type of Medicine
Medicine (tonic) ceremonial paint	Root	Simple and compound
Medicine (tonic)	Bark	Compound
Medicine (laxative)	Top	Simple
Medicine (tonic)	Root	Compound
Medicine (venereal disease, scrofula)	Root	Compound and simple
Medicine (fever, also in salve)	Root	Compound
Medicine (venereal disease)	Root	Compound
Medicine (diarrhea, fever)	Leaves (tea or chewed)	Simple
Medicine (whooping cough, fits, poultice)	Root, Leaves	Simple
Medicine (venereal disease)	Root	Compound
Medicine (tonic, laxative, food)	Root, Plant	Compound and simple
Medicine (herbal steam)	Twigs	Simple
Medicine (gravel in kidneys)	Root	Simple
Medicine (coughs, colds)	Bark	Simple
Food	Berries	
Food	Berries	
Medicine (rheumatism, colds)	Leaves	
Medicine (chills)	Root	Compound
Medicine (female generative organs)	Root	Compound
Food	Fruit	
Medicine (increase fertility)	Vine	Compound
Medicine (leucorrhea)	Juice from vine	Simple
Medicine (tonic, heart)	Bark	Simple and compound
Food		
Food		
Food		
Food		
Food		
Food		

PLANTS AND PLANT USES OF THE DELAWARE

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Botanical Name	Common Name
1. *Acorus calamus*	Sweet Flag
2. *Arctium minus*	Burdock
3. *Celastrus scandens*	Climbing Bittersweet
4. *Eupatorium perfoliatum*	Boneset
5. *Carya alba*	Hickory
6. *Inula helenium*	Elecampane
7. *Juniperus communis*	Juniper
8. *Nepeta cataria*	Catnip
9. *Ostrya virginiana*	Hop Hornbeam
10. *Pinus strobus*	White Pine
11. *Plantago major*	Plantain
12. *Populus tremuloides*	Aspen
13. *Prunus serotina*	Wild Cherry
14. *Quercus alba*	White Oak
15. *Quercus muhlenbergii*	Yellow Oak
16. *Rhus typhina*	Staghorn Sumac
17. *Roripa amoracia*	Horseradish
18. *Sanguinaria canadensis*	Bloodroot
19. *Tanacetum vulgare*	Tansy
20. *Verbascum thapsus*	Great Mullein
21. *Virburnum lentago*	Nanny-berry

MUNSEE, SIX NATIONS RESERVE, ONTARIO

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Native Use	Part of Plant Used	Type of Medicine
Medicine (colds)	Root scraped	
Medicine (blood purifier, poultice)	Root, Leaves	
Medicine (consumption)	Root	
Medicine (stomach)	Leaves	
Medicine (tonic, general debility, female disorder)	Bark	Compound
Medicine (colds)	Bark	Compound
Medicine (tonic, female weakness)	Bark	Compound
Medicine (infants)	Leaves	Simple
Medicine (tonic, general debility, female weakness)	Root	Compound
Medicine (kidneys, pulmonary boils)	Twigs, pitch	Simple
Medicine (bruises)	Leaves as poultice	Simple
Medicine (colds)	Bark	Compound
Medicine (tonic)	Bark	Compound
Medicine (tonic)	Bark	Compound
Medicine (to stop vomiting)	Bark, pour water in	Simple
Medicine (diarrhea)	Berries	
Medicine (neuralgia)	Leaves	
Medicine (to stop vomiting)	Root powdered	Compound and simple
Medicine (stomach)	Plant	
Medicine (pain, swelling)	Leaves as poultice	Simple
Medicine (measles)	Leaves	Simple

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PLANTS USED BY THE NANTICOKE OF

	Botanical Name	Common Name
222 278 824	1. *Acorus calamus*	Sweet Flag, "Muskrat-root"
	2. *Arctium minus*	Burdock
	3. *Aristolochia serpentaria*	Virginia Snakeroot
	4. *Baptisia tinctoria*	False Indigo
	5. *Chimaphila maculata*	Pipsissewa
	6. *Eupatorium perfoliatum*	Boneset
	7. *Hedeoma pulegioides*	False Pennyroyal
	8. *Hepatica americana*	Hepatica
	9. *Impatiens biflora*	Jewel-weed
	10. *Leiophyllum buxifolium*	Sand Myrtle
	11. *Monarda punctata*	Horsemint
	12. *Opuntia vulgaris*	Prickly Pear
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	14. *Pinus echinata*	Yellow Pine
	15. *Populus deltoidea*	Poplar
	16. *Symplocarpus foetidus*	Skunk Cabbage
	17. *Tanacetum vulgare*	Tansy
	18. *Thymus serphyllum*	Wild Thyme
	19. *Verbascum thapsus*	Great Mullein
	*20. *Sassafras sassafras*	Sassafras
	*21. *Asclepias tuberosa*	Milkweed, "Frog's milk"
[262]	*22. *Grossularia* sp.	Wild Gooseberry, "Devil's-berry"
	*23. Sp.?	"Fish Weed"
	*24. Sp.?	"King Cole Oil Weed"

* Reproduced from Speck, 1915, p. 32.

INDIAN RIVER, SUSSEX CO., DELAWARE

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Use	Part Used
Medicine (colic)	Root
Medicine (boils)	Leaves
Medicine (vermifuge)	Root
Medicine (sprains)	Plant
Medicine (ague)	Plant
Medicine (chills and fever)	Plant
Medicine (sudorific)	Plant
Medicine (chills)	First petals chewed to prevent chills
Medicine (burns)	Plant steeped for tea; leaves used as poultice
Medicine (tonic)	Berries
Medicine (colds)	Plant
Medicine (warts)	Rub pear juice on wart
Fed to babies	Root grated
Medicine (cathartic)	Pellets of pine pitch
Medicine (sprains)	Bark
Medicine (colds)	Leaves
Medicine (sudorific)	Plant
Medicine (chills, fever)	Plant
Medicine (poultice for fever)	Leaves dipped in vinegar and bound on back of neck, forehead, wrists, and soles of feet
Medicine (fever, ague)	Roots
None	None
Food	Berries
Medicine (vermifuge)	Leaves chewed
Poultices	Leaves and stems

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